Marathon Petroleum Company LLC

1300 South Fort Street
Detroit, MI 48217
Telephone 313/843-9100

FEDERAL EXPRESS

July 23, 2009

Ms. Teresa Seidel
Michigan DEQ – Air Quality Division
Cadillac Place
3058 West Grand Boulevard
Suite 2-300
Detroit, MI 48202

RE: Second Quarter 2009 Leak Detection and Repair, Wastewater VOC, and Benzene Waste NESHAP Certification and Compliance Report

Dear Ms. Seidel:

This report is being submitted by the Michigan Refining Division of Marathon Petroleum Company LLC (MPC) to fulfill the requirements of:

- The fugitive and wastewater VOC emissions monitoring program for the second quarter of 2009. This report is required by Michigan Air Rule 622, U.S. EPA's New Source Performance Standards (NSPS), and the National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries. In addition, this report contains information required by Paragraph 20Oiic of the First Modification to the November 2005 First Revised Consent Decree, United States of America et. al. v. Marathon Petroleum Company LLC (MPC) (Civil Action No. 4:01CV-40119-PVG), lodged February 7, 2008 and entered on March 31, 2008
- The Benzene Waste NESHAPS Subpart FF Certification and Compliance report for the second quarter of 2009. This report is required by 40 CFR 61 Subpart FF and Paragraph 18.P.ii.b of the Consent Decree.

The attached tables include information necessary for compliance with these requirements.

Table 1 lists MPC process units (NSPS VV Section 60.487 (c)(1)) and summarizes the process unit shutdowns that occurred during this quarter (NSPS VV Section 60.487 (c)(3)). Table 1 also includes the approximate number of components present in each unit at the beginning and ending of the reporting period (NSPS VV Section 60.487(c)(4)).

Table 2 lists the components found leaking and an exceedance summary for various pieces of control equipment or treatment processes during this quarter and the dates of repair (NSPS VV Section 60.487(c)(2) and 40 CFR 61.357(d)(7)).

Table 3 lists leaking components on delay of repair (NSPS VV Section 60.487(c)(2)). This information is also required by Paragraph 20.O.ii.c.2.f of the CD.

Table 4 includes information satisfying NSPS Subpart QQQ (Section 60.698(c)) requirements.

This table summarizes drain and junction box inspections that identified seals with low water level or other problems that could result in VOC emissions. In addition, subsequent corrective actions and/or repairs are identified. All required inspections for the QQQ standards have been completed as required. It was previously reported that MRD would change the inspection frequency from weekly to monthly. It was decided that the frequency would not change at this time.

Table 5 presents measures that MPC took to satisfy Paragraphs 20.O.ii.c.1 and 18.P.ii.b of the Consent Decree.

Table 6 lists specific monitoring information as required per Paragraph 20.O.ii.c.2.a–e of the Consent Decree.

Table 7 contains the certification that all of the required inspections have been carried out in accordance with the requirements of 40 CFR 61.357(d)(6).

Table 8 contains the exceedance summary for various pieces of control equipment or treatment processes as required in 40 CFR 61.357(d)(7).

Table 9 contains the End of Line calculation as required per Paragraph 18.K.iii and 18.P.ii.b of the Consent Decree. Please note that these calculations are preliminary as the refinery has not received written approval from EPA on the End of Line plan.

Attachment A contains the revised End of Line plan as required per Paragraph 18.K.i. Changes and updates were added to the plan as well as the Benzene NESHAP slop oil schematic. These changes were a result of the identification of spent caustic needing to be included in the End of Line calculations that are reported on a quarterly basis in Table 9 of this document.

Notification of LDAR Personnel

Per Paragraph 20, Subparagraph K of MPC's First Revised Consent Decree, Greg Shay, is hereby designated as having a "position within (the) Refinery responsible for LDAR management, with the authority to implement improvements". Program improvements must still be approved through the refinery's managerial staff. This assignment is effective August 1, 2009.

Please contact Ms. Emily Leidy (313) 297-6236 or Mr. Greg Shay (313) 297-6115 if you have any questions concerning this submittal.

Sincerely,

George P. Shaffner
Division Manager

Attachments

cc: (2) U.S. EPA, Director of Regulatory Enforcement c/o Matrix Environmental and Geotechnical – *Federal Express*
(2) Air and Radiation Division, U.S. EPA Region 5 –*Federal Express*
(2) Office of Regional Counsel, U.S. EPA Region 5 – *Federal Express*

Table 1
Component Summary - Second Quarter 2009
Michigan Refining Division

Complex	Unit	Description	Approximate Number of Components						Dates of Shutdown
			Pumps		Valves		Compressors		
			3/31/2009	6/30/2009	3/31/2009	6/30/2009	3/31/2009	6/30/2009	
1	4	Vacuum Unit	6	6	394	394	2	2	
	5	Crude Unit	24	24	2,185	2,185	0	0	
	29	Wastewater Plant	4	4	155	155	0	0	
2	7	Distillate Hydrotreater Unit	16	16	1,330	1,330	3	3	
	8	Gas Oil Hydrotreater Unit	5	5	1,516	1,516	2	2	
	9	Alkylation Unit	27	27	2,139	2,139	1	1	
3	11	Fluid Catalytic Cracking Unit	8	8	514	514	0	0	
	13	Propylene Unit	8	8	688	688	3	3	
	12/21*	Gas Con/SATS Depropanizer/Treaters	29	29	2,026	2,026	2	2	
4	14	Continuous Catalytic Reformer Unit	13	13	1,839	1,839	2	2	
	16	Naphtha Hydrotreater Unit	17	17	1,157	1,157	0	0	
	19	Kerosene Hydrotreater Unit	10	10	693	693	2	2	5/5/2009-5/6/2009
5	1	Crude Tank Farm	20	20	644	644	0	0	
	2	LPG Tank Farm	16	16	1,409	1,407	0	0	
	3/4	CP/Melvindale Tank Farms	21	21	1,214	1,214	0	0	
		Light Products Terminal	4	4	553	553	0	0	

Table 2
Leakers Detected During Second Quarter 2009
Michigan Refining Division

Month	Complex	Unit	VOC Tag I.D.	Component Type	Date Leak Detected	Date of Repair*

SEE ATTACHED TABLE

*R/D = Repair Delay S/D = Shutdown Required

MARATHON - DETROIT
1300 SOUTH FORT STREET
DETROIT, MI 48217

07/23/2009

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 02

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
12270	VALVE/ BALL	1.00	SOUTH BOTTOM 94 C=3 LPG								
				03/26/2009	M21	12900 PPM		04/06/2009	VLV-TFIT T	41000.00	
				04/06/2009	M21	41000 PPM		04/08/2009	VLV-TFIT T	62.00	
				04/08/2009	M21	62 PPM					04/08/2009
12276	VALVE/ GATE	1.00	SOUTH BOTTOM 94 C=3 LPG								
				06/04/2009	M21	27500 PPM	VLV-PLG-01	06/04/2009	VLV-TPL-01	18400.00	
				06/04/2009	M21	18400 PPM		06/04/2009	VLV-TFI	17000.00	
				06/04/2009	M21	17000 PPM		06/16/2009	VLV-TFIT T	19.00	
				06/16/2009	M21	19 PPM					06/16/2009
12575	VALVE	0.75	TOP/TOP VENT TK 93								
				06/04/2009	M21	15500 PPM	VLV-PLG-01	06/04/2009	VLV-TFI	58600.00	
				06/04/2009	M21	58600 PPM		06/04/2009	VLV-TPL-01	61.00	
				06/04/2009	M21	61 PPM					06/04/2009
12587	VALVE/ BALL	0.50	BTM TOP BALL CHECK TK94								
				03/26/2009	M21	51000 PPM		04/06/2009	VLV-TPK	6000.00	
				04/06/2009	M21	6000 PPM		04/08/2009	VLV-TP	24.00	
				04/08/2009	M21	24 PPM					04/08/2009
12687	VALVE/ NEEDLE	0.25	SW OF TK 87 SAMPLE TO FLARE								
				03/30/2009	M21	21400 PPM	VLV-TUB	03/30/2009	VLV-TFI	17900.00	
				03/30/2009	M21	17900 PPM		04/08/2009	VLV-TFIT T	20.00	

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 02

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
				04/08/2009	M21	20 PPM					
14236	VALVE/ BALL	3.00	TK 81								04/08/2009
				03/27/2009	M21	13100 PPM	VLV-PKG	03/27/2009	VLV-TIG-01	9900.00	
				03/27/2009	M21	9900 PPM					
				04/01/2009	M21	10 PPM					
16720	VALVE/ BLOCK	3.00	3" BLK VLV. NORTH BTM T-98 C=3 LPG								04/01/2009
				06/02/2009	M21	16400 PPM		06/02/2009	VLV-TFI	15300.00	
				06/02/2009	M21	15300 PPM		06/12/2009	VLV-TFIT	330.00	
				06/12/2009	M21	330 PPM					
5-00024	PUMP/ CENTRIF	0.00	22P89 (TK 87) N-C4 TO WOODHAVEN-02								06/12/2009
				06/05/2009	M21	11600 PPM					
				06/08/2009	VIS	P					
				06/15/2009	VIS	P		06/17/2009	PMP-STM	15.00	
				06/17/2009	M21	15 PPM					
5-00033	PUMP/ CENTRIF	0.00	22P43 - CONDENSATE TO CRUDE UNIT-02								06/17/2009
				04/21/2009	M21	10400 PPM		04/22/2009	PMP-TPL	7000.00	
				04/22/2009	M21	7000 PPM					
				04/28/2009	VIS	P		05/07/2009	PMP-RPS	6.00	
				05/07/2009	M21	6 PPM					
				05/07/2009	VIS	P					
				05/07/2009	M21	6 PPM					
5-01241	VALVE/ GATE	4.00	22-P-85 ORBIT LPG-02-02-02-02								05/07/2009
				03/31/2009	M21	10000 PPM					
				04/01/2009	M21	65000 PPM					
				04/01/2009	M21	5804 PPM		04/01/2009	VLV-TPL-	154.00	

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 02

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
									01		
				04/01/2009	M21	154 PPM					04/01/2009
5-01288	VALVE/ ORBIT	4.00	SOUTH END TK80 TOP ORBIT								
				06/09/2009	M21	863500 PPM	VLV-PKG	06/09/2009	VLV-TIG-01	24300.00	
				06/09/2009	M21	24300 PPM		06/17/2009	VLV-TP	27.00	
				06/17/2009	M21	27 PPM					06/17/2009
5-01586	VALVE/ GATE	4.00	SE SIDE OF 22-P-37 CHG LPG								
				06/03/2009	M21	11300 PPM	VLV-PKG	06/03/2009	VLV-TIG-01	9716.00	
				06/03/2009	M21	9716 PPM		06/12/2009	VLV-TPK	10.00	
				06/12/2009	M21	10 PPM					06/12/2009
5-01614	VALVE/ GATE	2.00	2FT N OF 22-P-36 MTBE CHG LPG								
				04/17/2009	M21	15000 PPM		04/20/2009	VLV-INJ	17.00	
				04/20/2009	M21	17 PPM					04/20/2009
5-01643	VALVE/ ORBIT	3.00	22-P-81 C=3 TO RAIL CARS LPG								
				03/20/2009	M21	25500 PPM		04/03/2009	VLV-TPK	8.00	
				04/03/2009	M21	8 PPM					04/03/2009
5-01753	VALVE/ BALL	1.00	NORTH BTM 98 AT SIGHTGLASS								
				06/02/2009	M21	18119 PPM	VLV-SCR	06/02/2009	VLV-TFI	25698.00	
				06/02/2009	M21	25698 PPM		06/12/2009	VLV-TFITT	300000.00	
				06/12/2009	M21	300000 PPM		06/16/2009	VLV-TFITT	49.00	
				06/16/2009	M21	49 PPM					06/16/2009
5-01834	VALVE/ ORBIT	3.00	99 TOP C=3 LPG-02								
				03/23/2009	M21	10200 PPM		03/26/2009	VLV-INJ	4000.00	
				03/26/2009	M21	4000 PPM		04/01/2009	VLV-INJ	10.00	
				04/01/2009	M21	10 PPM					
				04/01/2009	M21	13 PPM					04/01/2009

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 02

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
5-01834	VALVE/ ORBIT	3.00	99 TOP C=3 LPG-02								
				06/03/2009	M21	11200 PPM		06/10/2009	VLV-INJ	220.00	
				06/10/2009	M21	220 PPM					06/10/2009
5-01875	VALVE/ ORBIT	3.00	TOP 94 C=3 LPG								
				04/07/2009	M21	12000 PPM		04/08/2009	VLV-TP	27.00	
				04/08/2009	M21	27 PPM					04/08/2009
5-01896	VALVE/ GATE	1.00	TK 92 BLK VLV AT FLARE LINE ON FLOAT CHAMBER BYPASS								
				04/06/2009	M21	44000 PPM		04/08/2009	VLV-TP	32.00	
				04/08/2009	M21	32 PPM					04/08/2009

Process Unit 02 Summary

	Component Count	Leak Count
Total in Group	6	19
Total Valves	6	17
Total Pumps	0	2
Total Compressors	0	0
Total Relief Valves	0	0
Total Connectors	0	0
Total Other Equipment	0	0

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 04

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
21534	VALVE/ GATE	0.50	SE OF 4H1 HTR @ FUEL GAS CNTRL LP IN VOC BOX	*** Placed on Delay for Turnaround on 11/07/2008 Removed From Turnaround List on 04/06/2009							
				10/27/2008	M21	14600 PPM	VLV-PKG	10/27/2008	VLV-WOW	1899.00	
				10/27/2008	M21	1899 PPM					
				11/21/2008	M21	2462 PPM					
				12/04/2008	M21	723 PPM		12/04/2008	VLV-WSE	708.00	
				12/04/2008	M21	708 PPM					
				01/08/2009	M21	433 PPM		01/08/2009	VLV-TIG-01	696.00	
				01/08/2009	M21	696 PPM		01/08/2009	VLV-TIG-01	908.00	
				01/08/2009	M21	908 PPM					
				02/03/2009	M21	1314 PPM		02/03/2009	VLV-TIG-01	1827.00	
				02/03/2009	M21	1827 PPM					
				03/11/2009	M21	712 PPM		03/11/2009	VLV-TIG-01	685.00	
				03/11/2009	M21	685 PPM		04/06/2009	VLV-RV	17.00	
				04/06/2009	M21	17 PPM					04/06/2009

Process Unit 04 Summary

	Component Count	Leak Count
Total in Group	1	1
Total Valves	1	1
Total Pumps	0	0
Total Compressors	0	0
Total Relief Valves	0	0
Total Connectors	0	0
Total Other Equipment	0	0

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 05

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
25260	VALVE/ BALL	0.50	15FT WEST OF 5V48 NAPHTHA SAMPLE SYS								
				06/23/2009	M21	10000 PPM	VLV-TUB	06/23/2009	VLV-TFI	15400.00	
				06/23/2009	M21	15400 PPM		07/06/2009	VLV-TFIT	14.00	
				07/06/2009	M21	14 PPM					07/06/2009
29483	VALVE/ TWIN SEAL	6.00	W OF 5H1 CRDE HTR DEBUT BTMS MANIF TWIN SEAL VLV	*** Placed on Delay for Turnaround on 09/22/2008 Removed From Turnaround List on 04/06/2009							
				12/16/2008	M21	10400 PPM		12/16/2008	VLV-TBO	8853.00	
				12/16/2008	M21	8853 PPM					
				01/08/2009	M21	8 PPM					
				02/03/2009	M21	6169 PPM		02/03/2009	VLV-TBO	7079.00	
				02/03/2009	M21	7079 PPM					
				03/06/2009	M21	15700 PPM		03/06/2009	VLV-TBO	23800.00	
				03/06/2009	M21	23800 PPM		04/06/2009	VLV-RV	172.00	
				04/06/2009	M21	172 PPM					04/06/2009

Process Unit 05 Summary

	Component Count	Leak Count
Total in Group	1	2
Total Valves	1	2
Total Pumps	0	0
Total Compressors	0	0
Total Relief Valves	0	0
Total Connectors	0	0
Total Other Equipment	0	0

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 07

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
11895	VALVE/ GATE	2.00	SW CNTRL RM 7P38 RFLX PMP UNDR 7V9 DISC								
				06/18/2009	M21	13800 PPM	VLV-PKG	06/18/2009	VLV-TIG-01	6610.00	
				06/18/2009	M21	6610 PPM		06/30/2009	VLV-TPK	24.00	
				06/30/2009	M21	24 PPM					06/30/2009
25830	VALVE/ NEEDLE	0.50	L1/4 7-V-108 20' N. D.P. CELL								
				03/17/2009	M21	21300 PPM	VLV-SCR	03/17/2009	VLV-TFI	21000.00	
				03/17/2009	M21	21000 PPM		04/06/2009	VLV-RFIT T	21.00	
				04/06/2009	M21	21 PPM					04/06/2009
26668	VALVE/ NEEDLE	0.50	LPA OFF GAS SMPL STATN 20FT SW OF 7V112								
				06/17/2009	M21	10600 PPM	VLV-TUB	06/17/2009	VLV-TFI	5692.00	
				06/17/2009	M21	5692 PPM		06/30/2009	VLV-TFIT T	15000.00	
				06/30/2009	M21	15000 PPM		07/01/2009	VLV-TFIT T	5.00	
				07/01/2009	M21	5 PPM					07/01/2009
28407	VALVE/ NEEDLE	0.50	SW OF CNTRL RM 7V12 RECY KO POT S SDE 7V12 SMPL STAT								
				06/18/2009	M21	53900 PPM	VLV-TUB	06/18/2009	VLV-TFI	53000.00	
				06/18/2009	M21	53000 PPM		07/01/2009	VLV-TFIT T	3.00	
				07/01/2009	M21	3 PPM					07/01/2009

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 07

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed

Process Unit 07 Summary

	Component Count	Leak Count
Total in Group	3	4
Total Valves	3	4
Total Pumps	0	0
Total Compressors	0	0
Total Relief Valves	0	0
Total Connectors	0	0
Total Other Equipment	0	0

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 08

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
20488	VALVE/ CTRL	4.00	G/3 8-V-17 15' N.E. 8PC1794								
				05/18/2009	M21	21456 PPM	VLV-PKG	05/18/2009	VLV-TIG-01	21706.00	
				05/18/2009	M21	21706 PPM		06/01/2009	VLV-TP	16.00	
				06/01/2009	M21	16 PPM					06/01/2009
21992	VALVE/ GATE	2.00	G/4 8-V-013 MK UP GAS INTER STAGE DRUM S. SIDE S.G. BLOCK TO FLARE								
				05/05/2009	M21	15500 PPM		05/11/2009	VLV-TP	30.00	
				05/11/2009	M21	30 PPM					05/11/2009
25874	VALVE/ GATE	1.00	L1/1 8-V-004 HOT SEPERATOR								
				05/15/2009	M21	20353 PPM	VLV-SCR	05/15/2009	VLV-TFI	145.00	
				05/15/2009	M21	145 PPM					05/15/2009
28676	VALVE/ ORBIT	6.00	L2/4 8-V-033 15' S. E.								
				05/04/2009	M21	21799 PPM	VLV-PKG	05/04/2009	VLV-TIG-01	31302.00	
				05/04/2009	M21	31302 PPM		05/11/2009	VLV-TIG-01	4000.00	
				05/11/2009	M21	4000 PPM		05/13/2009	VLV-TPK	33.00	
				05/13/2009	M21	33 PPM					05/13/2009
29347	VALVE/ BLOCK	1.00	25' W.OF 8V008 AT CNTRLOOP								
				05/05/2009	M21	29100 PPM		05/11/2009	VLV-TBON	4.00	
				05/11/2009	M21	4 PPM					05/11/2009

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 08

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed

Process Unit 08 Summary

	Component Count	Leak Count
Total in Group	3	5
Total Valves	3	5
Total Pumps	0	0
Total Compressors	0	0
Total Relief Valves	0	0
Total Connectors	0	0
Total Other Equipment	0	0

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 09

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
14392	PUMP	0.00	6/0 9P1B								
				04/22/2009	M21	23500 PPM	PMP-PLG	04/22/2009	PMP-TPL	20.00	
				04/22/2009	M21	20 PPM					04/22/2009
15609	VALVE/ GATE	1.00	W OF 9P37								
				03/23/2009	M21	10900 PPM	VLV-PKG	03/23/2009	VLV-TIG-01	20000.00	
				03/23/2009	M21	20000 PPM		04/06/2009	VLV-RV	16.00	
				04/06/2009	M21	16 PPM					04/06/2009
2-00422	VALVE/ GATE	0.75	W SDE ON PLTFRM OF 9C1	*** Placed on Delay for Turnaround on 01/23/2009							
				01/09/2009	M21	14100 PPM		01/14/2009	VLV-TFIT T	4027.00	
				01/14/2009	M21	4027 PPM		01/20/2009	VLV-TFIT T	1200.00	
				01/20/2009	M21	1200 PPM					
				02/16/2009	M21	16 PPM					
				03/23/2009	M21	23 PPM		04/22/2009	VLV-TFI	408900.00	
				04/22/2009	M21	408900 PPM					
				04/22/2009	M21	26 PPM					04/22/2009
2-01124	PUMP/ CENTRIF	0.00	9P2A DEPROP REFLUX-09-09								
				04/22/2009	M21	105300 PPM	PMP-SCR	04/22/2009	PMP-TFI	109200.00	
				04/22/2009	M21	109200 PPM					
				04/28/2009	VIS	P		05/06/2009	PMP-TFI	0.00	
				05/06/2009	VIS	P					
				05/06/2009	M21	23 PPM					
				05/06/2009	M21	24 PPM					05/06/2009
24110	VALVE/ BALL	0.00	SMPLSTAT 5FT N OF 9E35	*** Placed on Delay for Turnaround on 01/23/2009							
				04/22/2009	M21	35600 PPM		04/22/2009	VLV-TBO	31100.00	

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 09

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
				04/22/2009	M21	31100 PPM		05/28/2009	VLV-TBO N	1260.00	
				05/28/2009	M21	1260 PPM					
				06/29/2009	M21	623 PPM		06/29/2009	VLV-TBO	610.00	
				06/29/2009	M21	610 PPM					
				07/16/2009	M21	3616 PPM		07/16/2009	VLV-TBO	1267.00	
				07/16/2009	M21	1267 PPM					
27200	VALVE/ BALL	0.00	SMPLSTAT 5FT N OF 9E35	*** Placed on Delay for Turnaround on 01/23/2009							
				04/22/2009	M21	12500 PPM		05/28/2009	VLV-TBO	954.00	
				05/28/2009	M21	954 PPM					
				06/29/2009	M21	986 PPM		06/29/2009	VLV-TBO	900.00	
				06/29/2009	M21	900 PPM					
				07/20/2009	M21	16 PPM					

Process Unit 09 Summary

	Component Count	Leak Count
Total in Group	3	6
Total Valves	1	4
Total Pumps	2	2
Total Compressors	0	0
Total Relief Valves	0	0
Total Connectors	0	0
Total Other Equipment	0	0

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 11

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
26422	PUMP	0.75	11P47A	*** Placed on Delay for Turnaround on 04/01/2009 Removed From Turnaround List on 05/27/2009							
				03/18/2009	M21	28500 PPM	PMP-FLG-01	03/18/2009	PMP-TFL	27100.00	
				03/18/2009	M21	27100 PPM		03/24/2009	PMP-TFL	0.00	
				03/24/2009	VIS	F					
				03/24/2009	M21	3000 PPM					
				03/25/2009	VIS	P					
				03/30/2009	VIS	P					
				04/06/2009	VIS	P					
				04/14/2009	VIS	P					
				04/20/2009	VIS	P					
				04/20/2009	M21	246 PPM					
				04/27/2009	VIS	P					
				05/04/2009	VIS	P					
				05/04/2009	M21	14 PPM					
				05/13/2009	VIS	P					
				05/18/2009	VIS	P		05/27/2009	PMP-TFLG	0.00	
				05/27/2009	VIS	P					
				05/27/2009	M21	21 PPM					05/27/2009
3-00251	PUMP/ CENTRIF	0.00	22P292 - (S. OF TK 28 IN DIKE ALCOHOL TANK) 22T15 METHANOL								
				03/18/2009	M21	15300 PPM		03/18/2009	PMP-WSE	4480.00	
				03/18/2009	M21	4480 PPM					
				03/25/2009	VIS	P					
				03/30/2009	VIS	P					
				04/06/2009	VIS	P					
				04/14/2009	VIS	P					
				04/20/2009	VIS	P					

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 11

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
				04/20/2009	M21	12 PPM					04/20/2009

Process Unit 11 Summary

	Component Count	Leak Count
Total in Group	1	2
Total Valves	0	0
Total Pumps	1	2
Total Compressors	0	0
Total Relief Valves	0	0
Total Connectors	0	0
Total Other Equipment	0	0

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 12-21

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
13671	VALVE/ NEEDLE	0.25	21V28 BTM CLP - DRAGER SMPL								
				05/18/2009	M21	24600 PPM	VLV-TUB	05/18/2009	VLV-TFI	20100.00	
				05/18/2009	M21	20100 PPM		05/27/2009	VLV-TFIT T	15000.00	
				05/27/2009	M21	15000 PPM		05/28/2009	VLV-TFIT T	100000.00	
				05/28/2009	M21	100000 PPM		05/28/2009	VLV-TFIT T	362.00	
					M21			05/28/2009	VLV-RFIT T	362.00	
				05/28/2009	M21	362 PPM					05/28/2009
13949	VALVE/ QUICK	0.75	SMPL PNL 10FT W OF 12P190A - TOP BV								
				05/20/2009	M21	66500 PPM	VLV-PKG	05/20/2009	VLV-TIG-01	123000.00	
				05/20/2009	M21	123000 PPM		06/01/2009	VLV-TP	271.00	
				06/01/2009	M21	271 PPM					06/01/2009
15963	VALVE/ GATE	0.75	12E5A E SIDE CTRL LOOP 12PC0261 S BLDR								
				05/07/2009	M21	619600 PPM	VLV-SCR	05/07/2009	VLV-TFI	96.00	
				05/07/2009	M21	96 PPM					05/07/2009
17061	VALVE/ GATE	0.50	21T6 BTM - BV FROM PSV								
				05/12/2009	M21	990500 PPM	VLV-TUB	05/12/2009	VLV-TFI	18700.00	
				05/12/2009	M21	18700 PPM		05/22/2009	VLV-TFIT T	170.00	
				05/22/2009	M21	170 PPM					05/22/2009
17069	VALVE/ GATE	0.75	MEOH STG TANK S OF 12V1 - BTM BV @TANK								
				05/20/2009	M21	12690 PPM	VLV-SCR	05/20/2009	VLV-TFI	15430.00	
				05/20/2009	M21	15430 PPM		06/01/2009	VLV-TFIT T	61.00	

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 12-21

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
				06/01/2009	M21	61 PPM					06/01/2009
24342	VALVE/ GATE	0.50	EL 7 FT 1 FT E OF 12P137 - N PRESS TAP	*** Placed on Delay for Turnaround on 08/31/2007							
				08/18/2007	M21	26200 PPM	VLV-SCF	08/18/2007	VLV-WOW	26200.00	
				08/18/2007	M21	26200 PPM					
				08/18/2007	M21	26200 PPM					
				09/27/2007	M21	14900 PPM					
				10/31/2007	M21	801 PPM					
				11/05/2007	M21	88000 PPM		11/05/2007	VLV-TPL-01	60000.00	
				11/05/2007	M21	60000 PPM					
				11/29/2007	M21	60000 PPM					
				12/28/2007	M21	91 PPM		01/31/2008	VLV-TFITT	4850.00	
				01/31/2008	M21	4850 PPM					
				02/07/2008	M21	1521 PPM					
				02/07/2008	M21	2269 PPM					
				05/29/2008	M21	35 PPM					01/31/2008
24343	VALVE/ GATE	0.50	EL 7 FT 1 FT E OF 12P137 - S PRESS TAP	*** Placed on Delay for Turnaround on 08/31/2007							
				08/18/2007	M21	36300 PPM	VLV-PLG				
				08/18/2007	M21	36300 PPM		08/18/2007	VLV-TPL	36300.00	
				08/18/2007	M21	36300 PPM					
				09/27/2007	M21	156200 PPM					
				10/31/2007	M21	42000 PPM					
				11/05/2007	M21	89300 PPM		11/05/2007	VLV-TPL-01	357400.00	
				11/05/2007	M21	357400 PPM					
				12/28/2007	M21	33900 PPM		12/28/2007	VLV-TPL-	13900.00	

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 12-21

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
									01		
				12/28/2007	M21	13900 PPM		01/31/2008	VLV-TFIT T	24000.00	
				01/31/2008	M21	24000 PPM					
				02/07/2008	M21	30500 PPM		02/07/2008	VLV-TFI	58600.00	
				02/07/2008	M21	58600 PPM		03/31/2008	VLV-WO W	588600.00	
				03/31/2008	M21	588600 PPM					
				04/28/2008	M21	20500 PPM		04/28/2008	VLV-TPL-01	14800.00	
				04/28/2008	M21	14800 PPM					
				05/29/2008	M21	133 PPM					
				06/26/2008	M21	12600 PPM		06/26/2008	VLV-TPL-01	22000.00	
				06/26/2008	M21	22000 PPM					
				07/10/2008	M21	3 PPM					
				08/13/2008	M21	115 PPM					
				09/11/2008	M21	7 PPM					
				10/21/2008	M21	59500 PPM		10/21/2008	VLV-TPL-01	84800.00	
				10/21/2008	M21	84800 PPM					
				11/24/2008	M21	149200 PPM		11/24/2008	VLV-TPL-01	147000.00	
				11/24/2008	M21	147000 PPM					
				12/17/2008	M21	10 PPM					
				01/27/2009	M21	35 PPM					
				02/05/2009	M21	855000 PPM		02/05/2009	VLV-TPL-01	851999.00	

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 12-21

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
				02/05/2009	M21	851999 PPM					
				03/20/2009	M21	544 PPM		03/20/2009	VLV-TIG-01	753600.00	
				03/20/2009	M21	753600 PPM					
				04/30/2009	M21	24 PPM					
				05/04/2009	M21	302186 PPM		05/04/2009	VLV-TPL-01	168236.00	
				05/04/2009	M21	168236 PPM					
				06/22/2009	M21	15 PPM					
26112	PUMP/ CENTRIFUGA	0.00	12P146B								
				06/02/2009	M21	15500 PPM					
				06/03/2009	M21	224 PPM					06/02/2009
27550	VALVE/ CTRL	3.00	CTRL LP N OF 12E7A - 12LC222 - INTERSTAGE RECEIVER								
				05/20/2009	M21	100000 PPM	VLV-PKG	05/20/2009	VLV-TIG-01	100000.00	
				05/20/2009	M21	100000 PPM		05/28/2009	VLV-TP	3000.00	
				05/28/2009	M21	3000 PPM		05/29/2009	VLV-CL	39.00	
				05/29/2009	M21	39 PPM					05/29/2009
27650	PUMP	0.75	PUMP 12P145A								
				05/11/2009	M21	101120 PPM		05/11/2009	PMP-WOW	100212.00	
				05/11/2009	M21	100212 PPM					
				05/13/2009	VIS	P					
				05/18/2009	VIS	P		05/19/2009	PMP-TCASE	479.00	

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 12-21

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
				05/19/2009	M21	479 PPM					05/19/2009
3-00426	VALVE/ CTRL	2.00	12E17 CTRL LP - 12FC0314								
				05/18/2009	M21	17000 PPM		05/19/2009	VLV-TBON	61.00	
				05/19/2009	M21	61 PPM					05/19/2009
3-00799	VALVE/ GATE CS	2.00	RERUN TO CHARGE-12-12-12	*** Placed on Delay for Turnaround on 05/20/2009							
				05/06/2009	M21	14500 PPM		05/18/2009	VLV-TBON	8900.00	
				05/18/2009	M21	8900 PPM		05/19/2009	VLV-TBON	1400.00	
				05/19/2009	M21	1400 PPM		05/20/2009	VLV-TBON	1057.00	
				05/20/2009	M21	1057 PPM					
				06/22/2009	M21	60 PPM					
3-01318	VALVE/ GATE CS	6.00	TO SAND FILTER NAPTHA SAMPLE AREA AT PIT-12								
				05/12/2009	M21	77300 PPM	VLV-FLG	05/12/2009	VLV-TFL	50000.00	
				05/12/2009	M21	50000 PPM		05/22/2009	VLV-TFLG	3000.00	
				05/22/2009	M21	3000 PPM					
				06/22/2009	M21	21 PPM					06/22/2009
3-01323	VALVE/ GATE CS	6.00	C.V. BYPASS NAPTHA SAMPLE AREA AT PIT-12								
				05/12/2009	M21	433600 PPM	VLV-PKG	05/12/2009	VLV-TIG-01	360000.00	
				05/12/2009	M21	360000 PPM		05/22/2009	VLV-TPK	2194.00	
				05/22/2009	M21	2194 PPM		05/26/2009	VLV-INJ	89.00	
				05/26/2009	M21	89 PPM					05/26/2009

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 12-21

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
3-01726	VALVE/ GATE	1.50	12V10 LVL 1 VLV WITH CHAIN S OR HRAIL								
				05/07/2009	M21	300000 PPM	VLV-SCR	05/07/2009	VLV-TFI	175000.00	
				05/07/2009	M21	175000 PPM		05/18/2009	VLV-TFIT	966.00	
				05/18/2009	M21	966 PPM		05/18/2009	VLV-TFIT	915.00	
				05/18/2009	M21	915 PPM		05/19/2009	VLV-TFIT	371.00	
				05/19/2009	M21	371 PPM					05/19/2009
3-01822	VALVE/ GATE	3.00	1/1 21V3	*** Placed on Delay for Turnaround on 09/05/2007							
				08/21/2007	M21	184900 PPM	VLV-PKG	08/21/2007	VLV-TP	184900.00	
				08/21/2007	M21	184900 PPM					
				08/21/2007	M21	38000 PPM		08/28/2007	VLV-INJ	39000.00	
				08/28/2007	M21	39000 PPM		08/28/2007	VLV-INJ	38000.00	
				08/28/2007	M21	38000 PPM					
				09/12/2007	M21	38000 PPM					
				10/31/2007	M21	1938 PPM					
				11/06/2007	M21	601 PPM					
				11/06/2007	M21	1334 PPM					
				11/29/2007	VIS	F					
				11/29/2007	M21	9520 PPM					
				12/07/2007	VIS	P					
				12/28/2007	M21	155 PPM					
				02/07/2008	M21	606 PPM					
				02/07/2008	M21	789 PPM					
				05/23/2008	M21	898 PPM		05/23/2008	VLV-TIG-01	1833.00	
				05/23/2008	M21	1833 PPM					

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 12-21

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
				08/13/2008	M21	1435 PPM		08/13/2008	VLV-TIG-01	404.00	
				08/13/2008	M21	404 PPM					
				09/11/2008	M21	30 PPM					
				10/21/2008	M21	1211 PPM		10/21/2008	VLV-TIG-01	1072.00	
				10/21/2008	M21	1072 PPM					
				11/11/2008	M21	18 PPM					
				12/17/2008	M21	8 PPM					
				01/27/2009	M21	29 PPM					
				02/17/2009	M21	850 PPM		02/17/2009	VLV-TIG-01	1110.00	
				02/17/2009	M21	1110 PPM					
				03/20/2009	M21	2019 PPM		03/20/2009	VLV-TIG-01	1513.00	
				03/20/2009	M21	1513 PPM					
				04/30/2009	M21	23 PPM					
				05/06/2009	M21	2605 PPM		05/06/2009	VLV-TIG-01	3027.00	
				05/06/2009	M21	3027 PPM					
				06/22/2009	M21	15 PPM					

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 12-21

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed

Process Unit 12-21 Summary

	Component Count	Leak Count
Total in Group	12	16
Total Valves	12	14
Total Pumps	0	2
Total Compressors	0	0
Total Relief Valves	0	0
Total Connectors	0	0
Total Other Equipment	0	0

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 13

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
13864	VALVE/ NEEDLE	0.25	13E4 SMPL PNL								
				06/03/2009	M21	13000 PPM	VLV-TUB	06/03/2009	VLV-TFI	11900.00	
				06/03/2009	M21	11900 PPM		06/12/2009	VLV-TFITT	79.00	
				06/12/2009	M21	79 PPM					06/12/2009
21630	VALVE/ INSTR	0.50	G/4 13-V-2 5' E. OF D.P. CELL 13FI0412								
				06/10/2009	M21	19000 PPM	VLV-SCR	06/10/2009	VLV-TFI	17600.00	
				06/10/2009	M21	17600 PPM		06/19/2009	VLV-TFITT	2000.00	
				06/19/2009	M21	2000 PPM		06/19/2009	VLV-RFITT	19.00	
				06/19/2009	M21	19 PPM					06/19/2009
24760	VALVE/ GATE	0.75	G/1 S SDE 13E1 @ ORFACE	*** Placed on Delay for Turnaround on 03/11/2008 Removed From Turnaround List on 04/06/2009							
				03/03/2008	M21	84800 PPM		03/11/2008	VLV-INJ	2402.00	
				03/11/2008	M21	2402 PPM		03/11/2008	VLV-INJ	1820.00	
				03/11/2008	M21	1820 PPM					
				04/28/2008	M21	156 PPM					
				05/29/2008	M21	602 PPM		05/29/2008	VLV-TIG-01	632.00	
				05/29/2008	M21	632 PPM					
				06/24/2008	M21	569 PPM		06/24/2008	VLV-TIG-01	511.00	
				06/24/2008	M21	511 PPM		06/30/2008	VLV-TP	9.00	
				06/30/2008	M21	9 PPM					
				07/22/2008	M21	47 PPM					
				08/26/2008	M21	13 PPM					
				09/10/2008	M21	51400 PPM		09/10/2008	VLV-TIG-01	21000.00	
				09/10/2008	M21	21000 PPM					
				10/21/2008	M21	3 PPM					

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 13

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
				11/26/2008	M21	15 PPM					
				12/12/2008	M21	15 PPM					
				01/27/2009	M21	151 PPM					
				02/25/2009	M21	159 PPM		04/06/2009	VLV-RV	234.00	
				04/06/2009	M21	234 PPM					
				04/07/2009	M21	100 PPM					04/06/2009
25881	VALVE/ NEEDLE	0.25	PIPING 4' E 13E3B @ SMPL STAT								
				04/07/2009	M21	31000 PPM	VLV-TUB	04/07/2009	VLV-TFI	27600.00	
				04/07/2009	M21	27600 PPM		04/17/2009	VLV-TFIT T	193.00	
				04/17/2009	M21	193 PPM					04/17/2009
26836	VALVE/ GATE	0.75	AT COLUMN FRONT OF 13P260								
				06/10/2009	M21	21000 PPM	VLV-SCR	06/10/2009	VLV-TFI	20100.00	
				06/10/2009	M21	20100 PPM		06/12/2009	VLV-TFIT T	71.00	
				06/12/2009	M21	71 PPM					06/12/2009
26987	VALVE/ INSTR	0.50	E SOE 13V2 @ DPCELL								
				06/10/2009	M21	240000 PPM	VLV-SCR	06/10/2009	VLV-TFI	110000.00	
				06/10/2009	M21	110000 PPM		06/19/2009	VLV-TFIT T	4000.00	
				06/19/2009	M21	4000 PPM		06/19/2009	VLV-RFIT T	19.00	
				06/19/2009	M21	19 PPM					06/19/2009
3-00051	VALVE/ GATE	0.00	1ST LVL 13V8 ON WEST SIDE TOP OF SIGHT GLASS								
				06/10/2009	M21	11500 PPM		06/22/2009	VLV-TFIT T	9588.00	
				06/22/2009	M21	9588 PPM		06/23/2009	VLV-TFIT T	693.00	

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 13

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
				06/23/2009	M21	693 PPM		06/24/2009	VLV-TFIT T	171.00	
				06/24/2009	M21	171 PPM					06/24/2009
3-00290	PUMP	0.00	13P266								
				03/16/2009	M21	10300 PPM					
				03/17/2009	VIS	P		03/20/2009	PMP-ST M	102000.00	
				03/20/2009	M21	102000 PPM					
				03/24/2009	VIS	P					
				03/30/2009	VIS	P		03/31/2009	PMP-RS	15000.00	
				03/31/2009	M21	15000 PPM		04/02/2009	PMP-ST M	5600.00	
				04/02/2009	M21	5600 PPM					
				04/06/2009	VIS	P					
				04/14/2009	VIS	P					
				04/20/2009	VIS	P					
				04/27/2009	VIS	P		04/27/2009	PMP-ST M	0.00	
				04/27/2009	VIS	F					
				04/27/2009	M21	6099 PPM					
				05/04/2009	VIS	P					
				05/04/2009	VIS	F					
				05/04/2009	M21	13300 PPM		05/04/2009	PMP-SEJ	16400.00	
				05/04/2009	M21	16400 PPM					
				05/13/2009	VIS	P					
				05/18/2009	VIS	P					
				05/26/2009	VIS	P					
				06/01/2009	VIS	P		06/02/2009	PMP-RSE AL	345.00	

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 13

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
				06/02/2009	M21	345 PPM					06/02/2009
3-00989	VALVE/ GATE	2.00	5' E 13V2 @ 13P295 DISCHARGE	*** Placed on Delay for Turnaround on 09/23/2008 Removed From Turnaround List on 04/06/2009							
				09/10/2008	M21	12600 PPM	VLV-PKG	09/10/2008	VLV-TIG-01	22600.00	
				09/10/2008	M21	22600 PPM					
				09/16/2008	M21	121000 PPM					
				09/19/2008	M21	558 PPM		09/22/2008	VLV-TFITT	830.00	
				09/22/2008	M21	830 PPM		09/23/2008	VLV-INJ	800.00	
				09/23/2008	M21	800 PPM					
				10/21/2008	M21	241 PPM		10/21/2008	VLV-TIG-01	223.00	
				10/21/2008	M21	223 PPM					
				11/26/2008	M21	14 PPM					
				12/11/2008	M21	96 PPM					
				01/27/2009	M21	64 PPM					
				02/25/2009	M21	8 PPM		04/06/2009	VLV-RV	22.00	
				04/06/2009	M21	22 PPM					04/06/2009
3-01004	VALVE	0.75	CNTLP SE SDE 13V2								
				04/07/2009	M21	77700 PPM	VLV-PLG-01	04/07/2009	VLV-TPL-01	114900.00	
				04/07/2009	M21	114900 PPM		04/09/2009	VLV-SEJ	112.00	
				04/09/2009	M21	112 PPM					04/09/2009
3-01179	VALVE/ GATE	0.75	5FT WEST OF13E4 AT CTRL LP 13FC472								
				03/24/2009	M21	32800 PPM	VLV-SCR	03/24/2009	VLV-TFI	26400.00	
				03/24/2009	M21	26400 PPM		04/06/2009	VLV-TFITT	6000.00	
				04/06/2009	M21	6000 PPM		04/07/2009	VLV-TFITT	1500.00	

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 13

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
				04/07/2009	M21	1500 PPM					
				04/07/2009	M21	8 PPM					
				04/07/2009	M21	19 PPM		04/07/2009	VLV-SEJ		04/07/2009
3-01282	VALVE/ GATE	0.75	N SDE 13C20	*** Placed on Delay for Turnaround on 09/11/2007 Removed From Turnaround List on 04/02/2009							
				09/07/2007	M21	40900 PPM	VLV-VFITT	09/07/2007	VLV-CL	40900.00	
				09/07/2007	M21	40900 PPM		09/07/2007	VLV-CL	942.00	
				10/31/2007	M21	942 PPM					
				11/29/2007	M21	34 PPM					
				12/10/2007	M21	5 PPM					
				02/25/2008	M21	981 PPM		02/25/2008	VLV-TFI	693.00	
				02/25/2008	M21	693 PPM					
				03/03/2008	M21	130 PPM					
				04/28/2008	M21	17 PPM					
				06/24/2008	M21	29 PPM					
				07/18/2008	M21	49 PPM					
				08/26/2008	M21	12 PPM					
				09/08/2008	M21	155 PPM					
				10/21/2008	M21	1038 PPM		10/21/2008	VLV-TFI	2703.00	
				10/21/2008	M21	2703 PPM					
				11/26/2008	M21	3 PPM					
				12/08/2008	M21	898 PPM		12/08/2008	VLV-TFI	1709.00	
				12/08/2008	M21	1709 PPM					
				01/27/2009	M21	342 PPM		01/27/2009	VLV-TFI	396.00	
				01/27/2009	M21	396 PPM					
				02/25/2009	M21	780 PPM		02/25/2009	VLV-TFI	705.00	
				02/25/2009	M21	705 PPM					
				03/24/2009	M21	964 PPM		03/24/2009	VLV-TFI	1385.00	
				03/24/2009	M21	1385 PPM		04/02/2009	VLV-RFIT T	24.00	

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 13

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
				04/02/2009	M21	24 PPM					04/02/2009

Process Unit 13 Summary

	Component Count	Leak Count
Total in Group	9	12
Total Valves	9	11
Total Pumps	0	1
Total Compressors	0	0
Total Relief Valves	0	0
Total Connectors	0	0
Total Other Equipment	0	0

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 14

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
27053	VALVE/ NEEDLE	0.50	10FT EAST OF 14C3 AT SAMP STATION								
				04/27/2009	M21	22700 PPM	VLV-TUB	04/27/2009	VLV-TFI	17900.00	
				04/27/2009	M21	17900 PPM					
				05/04/2009	M21	58 PPM					05/04/2009
27075	VALVE/ GATE	0.75	15FT SE OF 14C3 NEAR RDWY H2 TO COMPRESSOR								
				04/27/2009	M21	15200 PPM	VLV-PLG-01	04/27/2009	VLV-TPL-01	2179.00	
				04/27/2009	M21	2179 PPM		04/27/2009	VLV-TPL-01	319.00	
				04/27/2009	M21	319 PPM					04/27/2009
28019	VALVE/ CTRL	0.00	PRIMARY LIFT GAS 1ST LVL CCR 14PV0265								
				04/28/2009	M21	13900 PPM	VLV-FLG	04/28/2009	VLV-TFL	11931.00	
				04/28/2009	M21	11931 PPM					
				05/04/2009	M21	10 PPM					05/04/2009
28019	VALVE/ CTRL	0.00	PRIMARY LIFT GAS 1ST LVL CCR 14PV0265								
				05/05/2009	M21	12000 PPM	VLV-FLG	05/05/2009	VLV-TFLG	4500.00	
				05/05/2009	M21	4500 PPM		05/11/2009	VLV-TFLG	1700.00	
				05/11/2009	M21	1700 PPM		05/11/2009	VLV-TFLG	2450.00	
				05/11/2009	M21	2450 PPM		05/11/2009	VLV-RFITT	80.00	
				05/11/2009	M21	80 PPM					05/11/2009
4-00150	PUMP	0.00	14P9B								
				03/20/2009	M21	67000 PPM		03/25/2009	PMP-STM	0.00	
				03/25/2009	VIS	F					
				03/25/2009	M21	9800 PPM					
				03/26/2009	VIS	P					

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 14

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
				03/30/2009	VIS	P		04/03/2009	PMP-RPS	1700.00	
				04/03/2009	M21	1700 PPM					04/03/2009

Process Unit 14 Summary

	Component Count	Leak Count
Total in Group	3	5
Total Valves	3	4
Total Pumps	0	1
Total Compressors	0	0
Total Relief Valves	0	0
Total Connectors	0	0
Total Other Equipment	0	0

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 16

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
18924	VALVE/ GATE	6.00	SOUTH EAST OF BW BOILER FUEL GAS 6" BLOCK VLV-16								
				05/26/2009	M21	38000 PPM	VLV-PKG	05/26/2009	VLV-TIG-01	9569.00	
				05/26/2009	M21	9569 PPM		06/01/2009	VLV-TP	21400.00	
				06/01/2009	M21	21400 PPM		06/01/2009	VLV-TP	41.00	
				06/01/2009	M21	41 PPM					06/01/2009
21122	VALVE/ BUTTERFLY	6.00	E SDE 16E1C 6FT HIGH	*** Placed on Delay for Turnaround on 06/15/2009							
				06/02/2009	M21	24000 PPM		06/02/2009	VLV-TP	8000.00	
				06/02/2009	M21	8000 PPM		06/02/2009	VLV-TIG-01	5000.00	
				06/02/2009	M21	5000 PPM		06/02/2009	VLV-TP	6900.00	
				06/02/2009	M21	6900 PPM					
24116	VALVE/ BALL	0.75	W SDE 16V8 FUEL GAS DRUM								
				05/26/2009	M21	13400 PPM	VLV-SEL	05/26/2009	VLV-WOW	6734.00	
				05/26/2009	M21	6734 PPM		05/28/2009	VLV-TFITT	2100.00	
				05/28/2009	M21	2100 PPM		05/28/2009	VLV-TFITT	170000.00	
				05/28/2009	M21	170000 PPM		05/28/2009	VLV-TFITT	11.00	
				05/28/2009	M21	11 PPM					05/28/2009
27617	VALVE/ QUICK	1.00	DP CELL 10FT N OF 16P98								
				05/26/2009	M21	290098 PPM	VLV-PKG	05/26/2009	VLV-TIG-01	56.00	
				05/26/2009	M21	56 PPM					05/26/2009
27618	VALVE/ INSTR	1.00	DP CELL 10FT N OF 16P98 16FC0032								
				05/26/2009	M21	18169 PPM	VLV-PKG	05/26/2009	VLV-TIG-01	18000.00	
				05/26/2009	M21	18000 PPM		06/01/2009	VLV-TP	9000.00	

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 16

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
				06/01/2009	M21	9000 PPM		06/01/2009	VLV-TFIT	846.00	
				06/01/2009	M21	846 PPM		06/01/2009	VLV-TFIT	1000000.00	
				06/01/2009	M21	1000000 PPM		06/01/2009	VLV-RFIT	259.00	
				06/01/2009	M21	259 PPM					06/01/2009
4-00158	PUMP	0.00	16P99								
				04/20/2009	M21	60200 PPM					
				04/28/2009	VIS	P		04/28/2009	PMP-STM	0.00	
				04/28/2009	VIS	F					
				04/28/2009	M21	5400 PPM					
				05/04/2009	VIS	P					
				05/13/2009	VIS	P					
				05/19/2009	VIS	P					
				05/21/2009	M21	9286 PPM		05/21/2009	PMP-SSE	9308.00	
				05/21/2009	M21	9308 PPM					
				05/27/2009	VIS	P					
				06/01/2009	VIS	P					
				06/09/2009	VIS	P					
				06/15/2009	VIS	P		06/17/2009	PMP-SEJ	6800.00	
				06/17/2009	M21	6800 PPM		06/19/2009	PMP-SEJ	10700.00	
				06/19/2009	M21	10700 PPM					
				06/22/2009	VIS	P		06/24/2009	PMP-RSEAL	18900.00	
				06/24/2009	M21	18900 PPM		06/24/2009	PMP-RSEAL	150.00	
				06/24/2009	M21	150 PPM					06/24/2009

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 16

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
4-01486	VALVE	375.00	S SDE ON NHT REBOILER H R FUEL SAS	05/20/2009	M21	22816 PPM	VLV-PLG-01	05/20/2009	VLV-TPL-01	26166.00	
				05/20/2009	M21	26166 PPM		05/28/2009	VLV-TPL	22.00	
				05/28/2009	M21	22 PPM					05/28/2009

Process Unit 16 Summary

	Component Count	Leak Count
Total in Group	5	7
Total Valves	5	6
Total Pumps	0	1
Total Compressors	0	0
Total Relief Valves	0	0
Total Connectors	0	0
Total Other Equipment	0	0

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 19

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
13177	VALVE/ GATE	1.00	SOUTH OF 19V3								
				05/28/2009	M21	23000 PPM		05/28/2009	VLV-TBON	2000.00	
				05/28/2009	M21	2000 PPM		05/28/2009	VLV-TBON	1200.00	
				05/28/2009	M21	1200 PPM		05/28/2009	VLV-RV	21.00	
				05/28/2009	M21	21 PPM					05/28/2009

Process Unit 19 Summary

	Component Count	Leak Count
Total in Group	0	1
Total Valves	0	1
Total Pumps	0	0
Total Compressors	0	0
Total Relief Valves	0	0
Total Connectors	0	0
Total Other Equipment	0	0

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 34

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
5-00894	VALVE/ ORBIT	8.00	25' NE OF TK 108 AT 22P312 DISCH	*** Placed on Delay for Turnaround on 05/08/2009							
				04/24/2009	M21	15600 PPM		04/24/2009	VLV-TBON	3490.00	
				04/24/2009	M21	3490 PPM		04/27/2009	VLV-TBON	3607.00	
				04/27/2009	M21	3607 PPM					
				06/17/2009	M21	8 PPM					
5-01082	VALVE/ GATE	12.00	BY DIKE BTWN TK 109 AND 108	*** Placed on Delay for Turnaround on 04/30/2009							
				04/16/2009	M21	13700 PPM	VLV-FLG	04/16/2009	VLV-TFL	13000.00	
				04/16/2009	M21	13000 PPM		04/27/2009	VLV-TFLG	4205.00	
				04/27/2009	M21	4205 PPM		04/27/2009	VLV-TFLG	4000.00	
				04/27/2009	M21	4000 PPM		04/28/2009	VLV-TFLG	2400.00	
				04/28/2009	M21	2400 PPM					
				05/06/2009	M21	13 PPM					
				06/29/2009	M21	1985 PPM		06/29/2009	VLV-TBO	1852.00	
				06/29/2009	M21	1852 PPM					

Process Unit 34 Summary

	Component Count	Leak Count
Total in Group	1	2
Total Valves	1	2
Total Pumps	0	0
Total Compressors	0	0
Total Relief Valves	0	0
Total Connectors	0	0
Total Other Equipment	0	0

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : TERM

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
18539	VALVE/ BLEEDER	0.50	#5 TRUCK LOADING RACK METER 38 BLDR VLV								
				04/02/2009	M21	25400 PPM		04/14/2009	VLV-TFIT T	9.00	
				04/14/2009	M21	9 PPM					04/14/2009
18655	VALVE/ BLEEDER	0.50	#2 LOADING RACK METER 10 BLDR VLV								
				04/02/2009	M21	26600 PPM	VLV-SCR	04/02/2009	VLV-TFI	8968.00	
				04/02/2009	M21	8968 PPM		04/14/2009	VLV-TFIT T	10.00	
				04/14/2009	M21	10 PPM					04/14/2009

Process Unit TERM Summary

	Component Count	Leak Count
Total in Group	1	2
Total Valves	1	2
Total Pumps	0	0
Total Compressors	0	0
Total Relief Valves	0	0
Total Connectors	0	0
Total Other Equipment	0	0

Table 3
Regulatory Leakers Requiring Delay of Repair - Second Quarter 2009
Michigan Refining Division

Complex	Unit	VOC Tag I.D.	Comp type	Date leak first detected	Component Description	Reason for delay of repair	Date Placed on delay of repair	Date of Actual/Anticipated Repair	Note
1	4	21534	Valve	10/27/2008	Gate valve enclosed in VOC box S.E. side of 4 DF Fuel gas Control Loop	Requires unit shutdown	11/6/2008	4/6/2009	
1	5	24172	PSV	3/26/2009	PSV to flare PSV 4104	Requires unit shutdown	4/9/2009	4/6/2009	
1	5	29483	Valve	9/17/2008	Valve Bonnet	Requires unit shutdown	9/22/2008	4/6/2009	
2	7	10367	Valve	12/20/2008	Control Valve west side of fractionator	Requires unit shutdown	1/6/2009	4/6/2009	
2	7	25830	Fitting	3/17/2009	Screwed fitting on 07F1040	Component was removed from VOC service before remonitor could be completed	3/27/2009	4/6/2009	
2	9	24110	Valve	1/14/2009	5 ft N of 9E35 at DIB sidecut sample station	Requires unit shutdown	1/22/2009	10/31/2010	CD Leak
2	9	27200	Valve	1/20/2009	5 ft N of 9E35 at DIB sidecut sample station	Requires unit shutdown	1/22/2009	10/31/2010	CD Leak
2	9	2-00422	Fitting	1/9/2009	9C1 screw fitting leak	Requires unit shutdown	1/22/2009	10/31/2010	
3	11	26422	Pump	3/18/2009	11P47	Requires unit shutdown	4/1/2009	10/31/2010	
3	11	3-00251	Pump	3/18/2009	20P292	Leaking component isolated and not in VOC service	3/20/2009	4/20/2009	CD Leak
3	12	24343	Plug	8/18/2007	Plug at 12P137	Requires unit shutdown	8/31/2007	10/31/2010	
3	12	24342	Fitting	8/18/2007	Screwed fitting at 12P137	Requires unit shutdown	8/31/2007	10/31/2010	
3	12	20169	Valve	2/16/2009	12AV264 flex hup eastside of platform steps	Leaking component isolated and not in VOC service	2/25/2009	4/7/2009	
3	21	3-01822	Valve	8/21/2007	Packing on valve at LVL 1	Requires unit shutdown	9/5/2007	10/31/2010	
3	13	3-01282	Fitting	9/7/2007	Screwed fitting at 13C20	Requires unit shutdown	9/19/2007	4/2/2009	
3	13	3-01285	Fitting	9/7/2007	Screwed fitting at 13C20	Requires unit shutdown	10/5/2007	4/2/2009	
3	13	24760	Valve	3/3/2008	Gate Valve south side of 13E1	Requires unit shutdown	3/12/2008	4/6/2009	
3	13	3-00989	Valve	9/10/2008	Gate Valve at 13P295 discharge line	Requires unit shutdown	9/23/2008	4/6/2009	
3	12 21	3-00799	Valve	5/6/2009	Gate Valve rerun to charge	Requires unit shutdown	5/20/2009	6/22/2009	
3	13	3-00290	Pump	2/25/2009	13P266 pump seal	Leaking component is isolated and not in VOC service	3/26/2009	6/2/2009	
4	16	25034	Fitting	2/24/2009	Tube fitting at Sample Station by 16V3A	Requires unit shutdown	3/16/2009	4/3/2009	
4	16	21122	Valve	5/20/2009	Butterfly Valve NW side of 16E1C	Requires unit shutdown	6/15/2009	10/31/2010	
4	16	4-00158	Pump	4/20/2009	16P99	Leaking component isolated and not in VOC service	5/4/2009	6/24/2009	

Table 4
Wastewater System Monitoring - Second Quarter 2009
Michigan Refining Division

Complex	Unit	Tag ID	Date	Service/Description	First Attempt	Recommended Fix	Final repair	Final Repair Date
				No Drains Failed during this time period.				

Table 5
NSR Consent Decree Information Paragraphs 20B and 18P - Second Quarter 2009
Michigan Refining Division

Measures that MPC took during the 2nd Quarter 2009 to satisfy the provisions of Paragraph 20B and 18P(ii)(b) of the NSR Consent Decree:

Subparagraph	Requirement	Measures taken
20Bi	Training for personnel newly-assigned to LDAR	Greg Shay has completed training in July 2009 for LDAR.
20Bii	Annual training for regular LDAR personnel	Regular LDAR work is contracted through ARI Environmental Inc. ARI trains all personnel, training records are kept on-site.
20Biii	Training for Ops/Maint personnel	Refinery employees are required to complete a yearly Environmental Awareness CBT (Computer Based Training) module. This module, includes training information on the LDAR Program, was initiated on March 12, 2002. Additionally, contractors are required to watch a safety orientation on a yearly basis which includes information on the LDAR Program.
18P(ii)(b)	Laboratory Audits	The Detroit Refinery now has the ability to use RAD, ESC Labs of Nashville, TN, and Bureau Veritas of Livonia, MI to run all BWON samples. The Detroit Refinery will continue to use RAD as the primary laboratory for these samples.
18P(ii)(b)	Training	Affected Refinery employees are required to complete a yearly Benzene Sampling CBT (Computer Based Training) module. This module, includes training information on the Benzene NESHAP Program, was initiated August 2002.
18P(ii)(b)	EOL Sampling Results	The EOL Sampling program has not yet been approved for the Detroit Refinery. See Table 9 for preliminary calculations.

Table 6
NSR Consent Decree Information Paragraph 20Oiic(2) - Second Quarter 2009
Michigan Refining Division

Complex	Unit	Description	Month monitored	# valves monitored	# pumps monitored	# compressors monitored	# components leaking/quarter	# DTM components	Projected month of next monitoring
1	4	Vacuum Unit	Jun-09	393	6	2	1	1	Sep-09
	5	Crude Unit	Jun-09	2,178	24	1	2	12	Sep-09
	29	Wastewater Plant	Apr-09	155	4	0	0	0	Jul-09
2	7	Distillate Hydrotreater Unit	Jun-09	1,286	16	3	4	24	Sep-09
	8	Gas Oil Hydrotreater Unit	May-09	1,491	5	2	5	27	Aug-09
	9	Alkylation Unit	Apr-09	2,116	27	1	6	32	Jul-09
3	11	Fluid Catalytic Cracking Unit	Jun-09	485	8	0	2	1	Sep-09
	12/21	Gas Con/SATS Depropanizer	May-09	2,006	29	2	16	15	Aug-09
	13	Propylene Unit	Jun-09	687	8	3	12	4	Sep-09
4	14	Continuous Catalytic Reforming Unit	Apr-09	1,963	13	2	5	33	Jul-09
	16	Naphtha Hydrotreater Unit	May-09	1,069	17	0	7	34	Aug-09
	19	Kerosene Hydrotreater Unit	Apr-09	681	10	2	1	12	Jul-09
5	1	Crude Tank Farm	May-09	641	20	0	0	7	Aug-09
	2	LPG Tank Farm	Jun-09	1,364	16	0	19	42	Sep-09
	3/4	CP/Melvindale Tank Farms	Apr-09	1,213	21	0	2	1	Jul-09
		Light Product Terminal	Apr-09	612	4	0	2	0	Jul-09

Table 7
Inspection Certification required under 40 CFR 61.537 (d) (6) Benzene Waste NESHAP - Second Quarter 2009
Michigan Refining Division

Revised stream/equipment name/status	Required monitoring/inspections	Inspection Status	Monitoring/ inspection rule	Equipment Classification	Note No.	Visual	Method 21
SR Platformer Aromatics Sump (aka CP Sump)	The sump and access hatches/openings must be visually inspected initially and quarterly.	Completed	61.346(b)(4)(iii)	Individual Drain System		X	
Piping from the CP Sump to the CP Flare Knock-out Drum	Valves and flanges on the flare line from the aromatics sump to the flare knock-out drum must be monitored initially and annually for NDE.	Completed	61.349(a)(1)(i)	Closed Vent System and Control Devices			X
	Piping must be visually inspected initially and quarterly for evidence of visible defects such as holes in ductwork or piping and loose connections.	Completed	61.349(f)			X	
CP Sump Line from 14P10 to 11V25 and 11V4	Valves and flanges on the flare line from the aromatics sump to vessels 11V25 and 11V4 must be monitored initially and annually for NDE.	Completed	61.349(a)(1)(i)	Closed Vent System and Control Devices			X
	Piping must be visually inspected initially and quarterly for evidence of visible defects such as holes in ductwork or piping and loose connections.	Completed	61.349(f)			X	
CP Flare Knock-out Drums - primary and secondary	The CP primary and secondary knock-out drums and all access hatches, flanges, sampling ports, etc. that are accessible (i.e., above-ground) must be checked for NDE initially and annually.	Completed	61.343(a)(1)(i)(A)	Tanks			X
	The drums and access hatches, flanges, etc. shall have initial and quarterly visual inspections.	Completed	61.343(b)			X	
Piping from CP Flare Knock-Out Drums to the refinery slop system (e.g., tanks 23 or 508)	Piping from the CP Flare primary and secondary KO drums to the refinery slop system (e.g. tanks 23 or 508) shall be visually inspected initially and quarterly for indications of cracks, gaps, or other problems that could result in benzene emissions.	Completed	61.346(b)(4)(iv)	Individual Drain System		X	
Piping from Alky Spent caustic tank (9V31) through refinery flare line to the flare itself.	Valves and flanges on the flare line from the aromatics sump to the flare knock-out drum must be monitored initially and annually for NDE.	Completed	61.349(a)(1)(i)	Closed Vent System and Control Devices			X
	Piping must be visually inspected initially and quarterly for evidence of visible defects such as holes in ductwork or piping and loose connections.	Completed	61.349(f)			X	
Piping from GasCon spent caustic tank (21V47) through refinery flare line to the flare itself.	Valves and flanges on the flare line from the aromatics sump to the flare knock-out drum must be monitored initially and annually for NDE.	Completed	61.349(a)(1)(i)	Closed Vent System and Control Devices			X
	Piping must be visually inspected initially and quarterly for evidence of visible defects such as holes in ductwork or piping and loose connections.	Completed	61.349(f)			X	
Piping from Relief Valve of Merox System to CP Flare	Do not need to monitor or inspect this stream since it's now going to the flare system. Point of generation is the flare KO pot discharge.	–	N/A	–			
Piping from Disulfide Separator (21V33 or #3 Merox) to refinery slop system (Tank 23 or 508)	Valves and flanges on the flare line from the aromatics sump to the flare knock-out drum must be monitored initially and annually for NDE.	Completed	61.349(a)(1)(i)	Closed Vent System and Control Devices			X
	Piping must be visually inspected initially and quarterly for evidence of visible defects such as holes in ductwork or piping and loose connections.	Completed	61.349(f)			X	
Tanks 508 and 23		–	–	–			
Piping from Tank 507 to Tanks 508 and 23	Piping from Tank 507 to the refinery slop system (e.g., tank 508/23) shall be visually inspected initially and quarterly for indications of cracks, gaps, or other problems that could result in benzene emissions.	Completed	61.346(b)(4)(iv)	Individual Drain System		X	

Table 7
Inspection Certification required under 40 CFR 61.537 (d) (6) Benzene Waste NESHAP - Second Quarter 2009
Michigan Refining Division

Gravity Drum near Tank 507 (gravity drum near Tank 59 is currently out of service)	All openings, access hatches, sampling ports, etc. on the gravity drum near Tank 507 that are accessible (i.e., above-ground) must have initial and quarterly visual inspections.	Completed	61.343(a)(1)(i)(A)	Tanks		X	
	All openings, access hatches, sampling ports, etc. on the gravity drum near Tank 507 that are accessible (i.e., above-ground) must be checked for NDE initially and annually.	Completed	61.343(b)	Tanks			X
Tanks 29T40 and 29T41	All openings, access hatches, sampling ports, etc. on Tanks 29T40 and 29T41 must have initial and semiannual visual inspections. (Tanks 29T40 and 29T41 permitted as QQQ tanks with external floating roofs)	Completed	60.693-2(a)(iv)(5)(i)	Alternative Standards for Oil-Water separators		X	
							X
Piping from API separator to Tanks 29T40/41	Piping from API separator to Tanks 29T40/41 shall be visually inspected initially and quarterly for indications of cracks, gaps, or other problems that could result in benzene emissions.	Completed	61.346(b)(4)(iv)	Individual Drain System		X	
Piping from Tanks 29T40/41 to Tanks 508 and 23	Piping from Tanks 29T40/41 to the refinery slop system (e.g., tank 508/23) shall be visually inspected initially and quarterly for indications of cracks, gaps, or other problems that could result in benzene emissions.	Completed	61.346(b)(4)(iv)	Individual Drain System		X	
Piping from Unifiner, Alkylation, and Crude Flare Knock-Out Drums to Tanks 23 and 508	Piping from the Crude, Unifiner, and Alky flare knock-out drums to the refinery slop system (e.g., tank 508/23) shall be visually inspected initially and quarterly for indications of cracks, gaps, or other problems that could result in benzene emissions.	Completed	61.346(b)(4)(iv)	Individual Drain System		X	
Trucks that Unload into Gravity Drum near Tank 507 (gravity drum near Tank 59 is currently out of service)	All access hatches, flanges, sampling ports, etc. on trucks that unload to this gravity drum must be checked for NDE initially and annually	Completed	61.345(a)(1)(i)	Containers			X
	Access hatches, flanges, etc. shall have initial and quarterly visual inspections.	Completed	61.345(b)	Containers		X	
Vacuum Trucks	All access hatches, flanges, sampling ports, etc. on vacuum trucks that unload to the refinery slop system must be checked for NDE initially and annually.	Conducted 2nd Quarter 2009	61.345(a)(1)(i)	Containers			X
	Access hatches, flanges, etc. shall have initial and quarterly visual inspections.	Completed	61.345(b)	Containers		X	
Piping from NHT Particulate Filter relief to slop system	Piping from the NHT Particulate Filter relief valve(s) to the refinery slop system (e.g. Tanks 508 or 23) shall be visually inspected initially and quarterly for indications of cracks, gaps, or other problems that could result in benzene emissions.	Completed	61.346(b)(4)(iv)	Individual Drain System		X	
Piping from the Disulfide off-gas knock-out drum (12V36) to the refinery slop system (e.g., tanks 23 or 508)	Oil collected in the Disulfide off-gas knock-out drum (12V36) may, on occasion, be routed to the refinery slop system (e.g., tank 508/23). This piping shall be visually inspected initially and quarterly for indications of cracks, gaps, or other problems	Completed	61.346(b)(4)(iv)	Individual Drain System		X	
Piping from the West Plant slop system to tanks 23 and 508	Piping used to route slop oil from the West Plant to tanks 23 or 508 shall be visually inspected initially and quarterly for indications of cracks, gaps, or other problems that could result in benzene emissions.	Completed	61.346(b)(4)(iv)	Individual Drain System		X	

Table 7
Inspection Certification required under 40 CFR 61.537 (d) (6) Benzene Waste NESHAP - Second Quarter 2009
Michigan Refining Division

Piping associated with the carbon canister stations	Valves and flanges on the piping associated with each carbon canister station must be monitored initially and annually for NDE.	Completed	61.349(a)(1)(i)	Closed Vent System and Control Devices			X
	The piping associated with each carbon canister station must be visually inspected initially and quarterly for evidence of visible defects such as holes in ductwork or piping and loose connections.	Completed	61.349(f)	Closed Vent System and Control Devices		X	
Carbon canisters	The carbon canisters themselves must be visually inspected initially and quarterly for evidence of visible defects such as holes in ductwork or piping and loose connections.	Completed	61.349(f)	Closed Vent System and Control Devices		X	
Water Draw covers	All water draw covers associated with NESHAP program should be tightly sealed. This includes tanks in the Crude tank farm (6, 36, 39, 40, 41, 45, 46, 47, 48, 49, 53, 61, 72), CP Tank Farm (21, 57), and Melvindale Tank Farm (102, 103, 104, 105, 106, 107,	Completed	61.349(f)	Product draw down		X	
CP Flare	The flare stack itself shall be visually inspected initially and quarterly for evidence of visible defects such as holes in ductwork or piping and loose connections.	Completed	61.349(f)	Closed Vent System and Control Devices		X	
Piping from Tank 507 to the Benzene Stripper Column	Piping from Tank 507 to the Benzene Stripper Column shall be visually inspected initially and quarterly for indications of cracks, gaps, or other problems that could result in benzene emissions.	Completed	61.346(b)(4)(iv)	Individual Drain System		X	
Benzene Stripper Column (5V36)	Each seal, access door, and all other openings on the Benzene Stripper Column (5V36) shall be visually inspected initially and quarterly to ensure that no cracks or gaps occur and that openings are closed and gasketed properly.	Completed	61.348(e)(1)	Treatment Processes		X	
Piping from the top of the Benzene Stripper Column (5V36) to the overhead condensers (5E41A/B) and to the overhead receiver (5V37)	Valves and flanges on the piping from the stripper column to the condenser and to the overhead receiver must be monitored initially and annually for NDE.	Completed	61.349(a)(1)(i)	Closed Vent System and Control Devices			X
	Piping must be visually inspected initially and quarterly for evidence of visible defects such as holes in ductwork or piping and loose connections.	Completed	61.349(f)	Closed Vent System and Control Devices		X	
Benzene Stripper overhead condensers (5E41A/B)	The overhead condensers themselves must be visually inspected initially and quarterly for evidence of visible defects such as holes in ductwork or piping and loose connections.	Completed	61.349(f)	Closed Vent System and Control Devices		X	
Piping from the Crude Desalters (5V31/32) to the Benzene Stripper Column	Piping from the Crude Desalters to the Benzene Stripper Column shall be visually inspected initially and quarterly for indications of cracks, gaps, or other problems that could result in benzene emissions.	Completed	61.346(b)(4)(iv)	Individual Drain System		X	
Piping from the Benzene Stripper to the Brute Force System.	Piping from the Benzene Stripper to the Brute Force System shall be visually inspected initially and quarterly for indications of cracks, gaps, or other problems that could result in benzene emissions.	Completed	61.346(b)(4)(iv)	Individual Drain System		X	
Brute Force System	Each seal, access door, and all other openings on the Brute Force system shall be visually inspected initially and quarterly to ensure that no cracks or gaps occur and that openings are closed and gasketed properly.	Completed	61.357(d)(8)(g)	Alternative Standards for Oil-Water separators		X	
Tank 507	Floating roof tank requirements		–				

Table 7
Inspection Certification required under 40 CFR 61.537 (d) (6) Benzene Waste NESHAP - Second Quarter 2009
Michigan Refining Division

Piping from the Benzene Stripper overhead receiver (5V37) to the Crude Desalters	Piping from the Crude Desalters to the Benzene Stripper Column shall be visually inspected initially and quarterly for indications of cracks, gaps, or other problems that could result in benzene emissions.	Completed	61.346(b)(4)(iv)	Individual Drain System		X	
API separator, forebay, and associated equipment	Access doors and openings on the API separator, forebay, and associated equipment (e.g., sumps) must be visually inspected initially and semi-annually to ensure that there's a tight fit and to identify other problems that could result in VOC emissions.	Completed	61.352; 60.693-2(a)(5)	Alternative Standards for Oil-Water separators		X	
Piping from the API seperator to Tanks 29T32/33	Piping from the API seperator to Tanks 29T32/33 shall be visually inspected initially and quarterly for indications of cracks, gaps, or other problems that could result in benzene emissions.	Completed	61.346(b)(4)(iv)	Individual Drain System		X	
Tank 32	Floating roof tank requirements		--				
Tank 33	Floating roof tank requirements		--				
Tank 128	Floating roof tank requirements		--				
Piping from CP Sump to refinery slop system (e.g. tanks 8, 23, or 508)	Piping from the CP Aromatics Sump to the refinery slop system (e.g. tanks 8, 23, or 508) shall be visually inspected initially and quarterly for indications of cracks, gaps, or other problems that could result in benzene emissions.	Completed	61.346(b)(4)(iv)	Individual Drain System		X	
Piping from Gravity Drum near Tk 507 to tanks 23 and 508	Piping from the Gravity Drum near Tk 507 to tanks 23 and 507 shall be visually inspected initially and quarterly for indications of cracks, gaps, or other problems that could result in benzene emissions.	Completed	61.346(b)(4)(iv)	Individual Drain System		X	
Piping from Gravity Drum near Tk 507 and piping at Tk 508 used for Vacuum Truck operations (gravity drum near Tk 59 currently out of service).	Piping from Gravity Drum near Tk 507 used for Vacuum Truck operations shall be visually inspected initially and quarterly for indications of cracks, gaps, or other problems that could result in benzene emissions.	Completed	61.346(b)(4)(iv)	Individual Drain System		X	
Piping from Tank 51 to tanks 23 or 508.	Piping from Tank 51 to tanks 23 or 508 shall be visually inspected initially and quarterly for indications of cracks, gaps, or other problems that could result in benzene emissions.	Completed	61.346(b)(4)(iv)	Individual Drain System		X	
Tank 51	Floating roof tank requirements		--				
Piping from Tank 52 to tanks 23 or 508.	Piping from Tank 51 to tanks 23 or 508 shall be visually inspected initially and quarterly for indications of cracks, gaps, or other problems that could result in benzene emissions.	Completed	61.346(b)(4)(iv)	Individual Drain System		X	
Tank 52	Floating roof tank requirements		--				
Piping from CP Flare Secondary K.O. Drum to CP Flare	Piping from CP Flare Secondary K.O. Drum to CP Flare shall be visually inspected initially and quarterly for indications of cracks, gaps, or other problems that could result in benzene emissions.	Completed	61.346(b)(4)(iv)	Individual Drain System		X	
Hydrocarbon/liquid line from CP Sump to FCCU low pressure receiver or refinery slop system.	Hydrocarbon/liquid line from CP Sump to FCCU low pressure receiver or refinery slop system (e.g. tanks 23 or 508) shall be visually inspected initially and quarterly for indications of cracks, gaps, or other problems that could result in benzene emissions	Completed	61.346(b)(4)(iv)	Individual Drain System		X	
Piping from CP Flare Knock-Out Drums to the FCCU high and low pressure slop header	Piping from CP Flare Knock-Out Drums to the FCCU high and low pressure slop header shall be visually inspected initially and quarterly for indications of cracks, gaps, or other problems that could result in benzene emissions.	Completed	61.346(b)(4)(iv)	Individual Drain System		X	
Piping from CP Sump to FCCU high and low pressure slop header	Piping from CP Sump to FCCU high and low pressure slop header shall be visually inspected initially and quarterly for indications of cracks, gaps, or other problems that could result in benzene emissions.	Completed	61.346(b)(4)(iv)	Individual Drain System		X	
Piping from FCCU high pressure slop header to high pressure slop bullets	Piping from FCCU high pressure slop header to high pressure slop bullets shall be visually inspected initially and quarterly for indications of cracks, gaps, or other problems that could result in benzene emissions.	Completed	61.346(b)(4)(iv)	Individual Drain System		X	
Piping from FCCU low pressure slop header to low pressure slop bullets	Piping from FCCU low pressure slop header to low pressure slop bullets shall be visually inspected initially and quarterly for indications of cracks, gaps, or other problems that could result in benzene emissions.	Completed	61.346(b)(4)(iv)	Individual Drain System		X	
High and low pressure slop bullets	All openings, access hatches, sampling ports, etc. on high and low pressure slop bullets that are accessible (i.e., above-ground) must have initial and quarterly visual inspections.	Completed	61.343(a)(1)(i)(A)	Tanks		X	

Table 7
Inspection Certification required under 40 CFR 61.537 (d) (6) Benzene Waste NESHAP - Second Quarter 2009
Michigan Refining Division

Piping from the Melvindale or Crude Tank Farms to Tank 507	Above-ground piping from the Melvindale or Crude Tank Farms to Tank 507 shall be visually inspected initially and quarterly for indications of cracks, gaps, or other problems that could result in benzene emissions.	Completed	61.346(b)(4)(iv)	Individual Drain System		X	
Piping from the Marketing Terminal sewer to Tanks 23/508	Piping used to route slop oil from the Marketing Terminal sewer to Tanks 23/508 shall be visually inspected initially and quarterly for indications of cracks, gaps, or other problems that could result in benzene emissions.	Completed	61.346(b)(4)(iv)	Individual Drain System		X	
Truck drain downs at Terminal loading rack	Truck drain downs at Terminal loading rack shall be visually inspected initially and quarterly for indications of cracks, gaps, or other problems that could result in benzene emissions.	Completed	61.346(b)(4)(iv)	Individual Drain System		X	
Aboveground piping from truck drain downs to NESHAP Sump	Aboveground piping from truck drain downs to NESHAP Sump shall be visually inspected initially and quarterly for indications of cracks, gaps, or other problems that could result in benzene emissions.	Completed	61.346(b)(4)(iv)	Individual Drain System		X	
Terminal NESHAP Sump	Terminal NESHAP Sump shall be visually inspected initially and quarterly for indications of cracks, gaps, or other problems that could result in benzene emissions.	Completed	61.346(b)(4)(iv)	Individual Drain System		X	
API separator floating roof inspections	5 year primary seal, Annual secondary seal.	Completed	61.357(d)(8)(g)	Alternative Standards for Oil-Water separators	2		

Notes:
1. Visual inspections carried out during May 2009
2. Secondary Seal was inspected during July 2009.

*Method 21 readings for valves are completed quarterly.

Table 8
Exceedance Summary for Various Control Equipment or Treatment Processes
Second Quarter 2009
Michigan Refining Division

Equipment	Reporting Requirement	No. of Reportable Exceedances this Quarter	Regulation	Equipment Classification
Desalter Water Flash Column	Each period of operation during which the concentration of benzene is > or = to 10 ppm based upon monthly sampling of Desalter Water Flash Column effluent.	0	40 CFR 61.348(a)(1)(i) & 357(d)(7)(i)	Treatment Processes
Carbon Canisters	Each occurrence when the carbon in a carbon adsorber system that is not regenerated directly on site in the control device is not replaced at the predetermined interval specified in 61.354(d)	0	40 CFR 61.357(d)(7)(iv)(I)	Closed Vent System or Control Device
Water Draw covers	All water draw covers associated with NESHAP program should be tightly sealed. This includes tanks in the Crude tank farm (6, 36, 39, 40, 41, 45, 46, 47, 48, 49, 53, 61, 72), CP Tank Farm (21, 57), and Melvindale Tank Farm (102, 103, 104, 105, 106, 107, 120, 125, 126, 127, 128, 133, 134, 112, 113, 114, 115, 129, 130, 176, 108, 109, 110, 116)	0	61.349(f)	Closed Vent System
Inspections[1]	Summarizes all inspections required by 61.342 through 61.354 during which detectable emissions are measured or a problem (such as a broken seal, etc.) that could result in benzene emissions, including information about the repairs or corrective action taken.	2	61.357(d)(8)	See Table 7

Note: 1. Inspections include valves and flanges that had NDE reading above 500 ppm. If defiencies are noted, an attached summary sheet will be included.

TP=Tighten Packing; TG=Tighten Plug; SS=Steam Seal; W=Work Request

MARATHON - DETROIT
1300 SOUTH FORT STREET
DETROIT, MI 48217

07/20/2009

LEAKING EQUIPMENT LOG

Program: NESHAPS-FF

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 05

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
17214	VALVE/ GATE	0.75	E OF CRUDE UNIT HTR LVL 2 5V36 DESALTER FLSH COL E. OF SDE	06/30/2009	M21	867 PPM	VLV-PKG	06/30/2009	VLV-TIG-01	94.00	
				06/30/2009	M21	94 PPM					06/30/2009

Process Unit 05 Summary

	Component Count	Leak Count
Total in Group	1	1
Total Valves	1	1
Total Pumps	0	0
Total Compressors	0	0
Total Relief Valves	0	0
Total Connectors	0	0
Total Other Equipment	0	0

LEAKING EQUIPMENT LOG

Reporting Period 04/01/2009 - 06/30/2009

Process Unit : 29

Tag Number	Part / Type	Size	Location	Monitor Date	Test Method	PPM Reading	Part Leaking	Repair Date	Repair Method	Remonitor Reading	Date Completed
16771	VALVE/ BLOCK	4.00	PUMP 29P-29B DISCHARGE-29								
				04/02/2009	M21	1134 PPM	VLV-PKG	04/02/2009	VLV-TIG-01	1917.00	
				04/02/2009	M21	1917 PPM		04/09/2009	VLV-TPK	29.00	
				04/09/2009	M21	29 PPM					04/09/2009

Process Unit 29 Summary

	Component Count	Leak Count
Total in Group	1	1
Total Valves	1	1
Total Pumps	0	0
Total Compressors	0	0
Total Relief Valves	0	0
Total Connectors	0	0
Total Other Equipment	0	0

Table 9
Second Quarter 2009 EOL Sample Results
Michigan Refining Division

Q2 2009		S1 Sand Filter Effluent	S2 29T40/41	S3a Centrifuge Solids	S3b 29T12	S4 Vacuum Truck	S5 Miscellaneous	S6 Spent Caustic	Monthly Total (kg)
April-09	Individual Sample Results (ppm)	0.26	--	--	--				
		1.01	619.00	--	1.25				
		0.67	1220.00	--	2.00				
		0.49	326.33	3.10	329.00				
	Average Sample Results (ppm)	0.61	721.78	3.10	110.75				
	Waste Volume (gallons/month)	51840000	16175.00	251453	24000				
	Waste Amount (kg)	196,520,727.27	61,317.95	953235	65,259.05				
	Monthly EOL Benzene Quantity (kg)*	119.22	44.26	2.96	7.23	77.95	0.00	0.00	251.61
May-09	Individual Sample Results (ppm)	0.67	853.33	12.67	1.25				
		0.32	293.67	0.51	1.25				
		0.42	306.00	1.93	1.25				
		0.85	276.33	--	1.25				
	Average Sample Results (ppm)	0.56	432.33	5.04	1.25				
	Waste Volume (gallons/month)	53568000	7287	186600	18000				
	Waste Amount (kg)	203,071,418.18	27,548.54	707384	48,944.29				
	Monthly EOL Benzene Quantity (kg)*	114.57	11.91	3.56	0.08	0.17	0.00	0.002	130.27
June-09	Individual Sample Results (ppm)	0.26	265.67	0.67	1.25				
		0.79	267.00	0.60	1.25				
		0.71	254.67	--	1.25				
		0.42	372.33	0.33	1.25				
	Average Sample Results (ppm)	0.55	287.42	0.53	1.25				
	Waste Volume (gallons/month)	51840000	8674	405604	12000				
	Waste Amount (kg)	196,520,727.27	32,882.35	1537608	32,629.53				
	Monthly EOL Benzene Quantity (kg)*	107.60	9.45	0.82	0.04	114.03	0.00	0.001	231.94
Quarterly Benzene totals (kg):		341.38	65.62	7.34	7.33	192.15	0.00	0.00	613.83

*For non-detect results, 1/2 the detection limit is used in the calculated quantity.

Second Quarter EOL Benzene Quantity (Mg):	0.61383	Second Quarter EOL Benzene Quantity (Kg):	613.83

Attachment A

Revised End of Line Plan

Proposed End of Line Benzene Quantification Plan

MARATHON PETROLEUM COMPANY LLC
MICHIGAN REFINING DIVISION, DETROIT REFINERY

1300 South Fort Street
Detroit, MI 48217

Revised: July 23, 2009

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Attachment A: End of Line Sampling Locations

1 Purpose

Per paragraph 18(K)(i) of the Consent Decree, no later than four months after the Benzene Waste NESHAP applicability date, July 1, 2003, the Detroit Refinery is required to submit to EPA for approval a plan for an "end of the line"(EOL) determination of the benzene quantity in uncontrolled waste streams. This plan is to include the sampling locations, methods for flow calculations, and the assumed volatilization rates to be used in calculating the uncontrolled benzene quantity. Once the plan is approved by the EPA, Detroit shall begin implementation of the EOL Sampling Plan in the first month of the first full quarter following the approval.

2 Facility Background

The Detroit Refinery processes approximately 110,000 barrels of crude oil per day. The refinery consists of the following process units: Crude Unit, Vacuum Unit, Fluidized Catalytic Cracking Unit, , Alkylation Unit, Propylene Unit, SATS Depropanizer, CCR Platformer Unit, Naptha Hydrotreater Unit, Distillate Hydrotreater Unit, Gas Oil Hydrotreater Unit ,Kerosene Hydrotreater Unit, Sour Water Stripper, Sulfur Recover Unit, and SCOT Tail Gas Unit. The refinery produces gasoline, diesel, fuel oils, kerosene, propane, butane, asphalt, and roofing flux.

The Detroit Refinery produces approximately 1.5 million gallons per day of wastewater, including desalter effluent, product tank water draws, process wastewater, and stormwater. The treatment process consists of two parallel API Separators, two treatment tanks (tanks 29T40/41), two Induced Gas Flotation Units (IGFs), and four effluent sand filters.

Water enters the WWTP through the refinery sewer system at the forebay of the API Separator. The forebay has facilities for skimming oil from the top of the wastewater. The skimmed oil is then transferred to Tanks 29T40/41 where any water that may have been skimmed off with the oil is allowed to settle. The oil is ultimately transferred to the refinery slop Tanks (508 or 23) where it is charged to the Crude/Vacuum Unit for reprocessing. The water that settles in Tank 29T40/41 is returned to the Waste Water Treatment Unit. After primary treatment, the water is then sent to a POTW.

Skimmings from the IGF are transferred to downstream decanters for further separation. Sludge pulled from the decanters of the IGF unit is sent to Tank 29T12 for further processing through a centrifuge prior to shipment off site.

3 OVERVIEW OF THE EOL BENZENE DETERMINATION PLAN

The EOL benzene analysis will include sampling of the IGF Effluent, oil removed from tanks 29T40/41, water/oil from the effluent of 29T12, any vacuum trucks that do not unload at the API, and any applicable miscellaneous wastes (e.g. turnaround wastes). A figure containing the EOL sampling locations can be found in Attachment A.

The total EOL benzene quantity shall be determined by quantifying the total mass of benzene in the various streams exiting the wastewater treatment system and then adding benzene concentrations from aqueous wastes not managed in the wastewater treatment system (e.g., turnaround wastes). The mathematical representation of the EOL Benzene Determination Plan can be seen in the equation below:

$$EOL = Q_{\text{Sand Filter Effluent}}C_{\text{Benzene}} + Q_{\text{29T40/41(oil)}}C_{\text{Benzene}} + Q_{\text{29T12(water/oil)}}C_{\text{Benzene}} + Q_{\text{Miscellaneous}}C_{\text{Benzene}} + Q_{\text{vacuum trucks}}C_{\text{Benzene}}$$

Note that "$Q_{\text{vacuum trucks}}$" means the material taken to the gravity drum near Tank 507, which bypasses any other EOL sampling location. The gravity drum near Tank 59 has been physically removed and will no longer be used.

4 STREAMS TO BE SAMPLED IN THE EOL ESTIMATE

Sampling Locations

IGF Effluent

Sample Location S1 will be the Sand Filter effluent. This sample will capture the benzene being released through wastewater to the city sewer. All WWTP equipment upstream of this location is controlled per subpart QQQ. This is an aqueous sample.

Tanks 29T40/41

Sample Location S2 will be an oil sample from the effluent of Tanks 29T40/41. This sample will capture any benzene associated with the oil content of the API Separator. All WWTP equipment upstream of this location is controlled per subpart QQQ. This is not a continuously flowing stream.

Tank 29T12

Sample Location S3 will be a water/oil sample from the effluent of Tank 29T12. The sludge collected from the IGF process is pumped to 29T12 for further processing through a centrifuge prior to shipment off site. This is not a continuously flowing stream. Due to difficulty sampling and determining the flow rate from Tank 29T12 samples will be taken after the centrifuge. The centrifuge solids and centrifuge oil will be sampled monthly and will be known as sample location S3a and S3b respectively.

Vacuum Trucks that do not unload at the API Separator

Sample Location S4 will be any vacuum truck shipment that is taken directly to the gravity drum near Tank 507, the gravity drum near Tank 59, and Tank 508/23 and is not accounted for in other EOL sampling locations. If sufficient sampling has been conducted on similar material to provide a reasonable estimate of benzene concentrations, the sampling of every vacuum truck movement will not be repeated. This stream may be infrequent and may not contribute to the EOL BQ for a given quarter. This could be an aqueous or organic stream.

Turnaround, Maintenance, and Remediation Wastes

Sample Location S5 will include any streams within the facility that exit prior to EOL measurements, including turnaround wastes, sewer

cleaning sludge, tanks sludge, and bundle cleaning sludge. All miscellaneous wastes will be reviewed and any meeting the requirements of the EOL inclusion (i.e., all uncontrolled aqueous streams which exit the WWTP prior to any EOL measurement) will be included in the EOL determination for the quarter if it removed from the facility. Exemptions at this sampling point include waste streams that are controlled per 40 CFR 61.342.

This sample location will be any container or stream of miscellaneous waste that is not considered typical refinery waste and is uncontrolled as described by Subpart FF. This stream may be infrequent and may not contribute to the EOL BQ for a quarter. If sufficient sampling has been conducted on similar material to provide a reasonable estimate of benzene concentrations, then this sample may not be caught, although the material will still be accounted for in the EOL BQ calculation. (For example, two tanks in the same service can reasonably be expected to have the same benzene concentrations in the tank bottoms.)

Also included in this sample location are any spills and excavations that result from spills. The facility has no on going remediation at this time.

Spent Caustic

Sample location S6 will be a caustic sample from the spent caustic tanks 21V47. This sample will capture any benzene associated with the spent caustic from the process units. This is not a continuously flowing stream.

Assumed Volatilization Rates

Although the Detroit Refinery tank farms have trapped drains with water seals, and a closed water draw system, the refinery sewer system is classified an uncontrolled. A volatilization rate for the uncontrolled sewer system is 20%, which has been built into the quarterly triggers specified in the Consent Decree. With a controlled sewer system, the quarterly triggers specified in the Consent Decree for additional sampling would be set at 1.5 Mg/quarter (i.e., 6 Mg/yr divided by four quarters). However, because of the uncontrolled sewer system at the Detroit Refinery and the assumed volatilization rate of 20%, these triggers are set at 1.2 Mg/quarter instead (1.5 Mg/quarter minus 20% for volatilization).

Flow Calculations

Sampling Location S1 flow rate shall utilize the Sand Filter effluent flow which is recorded instantaneously by a Rosemount flow meter. This data can also be accessed from the refinery PI system and calculated as a monthly average.

Sampling Location S2 flow rate shall use a monthly totalizer reading to estimate a monthly flow rate. If the service of the line is too harsh for accurate totalizer readings, an estimate will be made using the volume difference before and after pumping.

Sampling Location S3 flow rate shall be estimated using the volume difference before and after pumping.

Sampling Location S4 flow rate shall be estimated by differences in volumes at the source, by operator logs, or by the quantity recorded on the vacuum truck logsheets.

Sampling Location S5 flow rate shall be estimated by differences in volumes at the source, by operator logs, or by the quantity recorded on the vacuum truck logsheets.

Sampling Location S6 flow rate will be estimated by using the volume recorded on the Merichem invoices for the sale of spent caustic.

General Sampling Guidelines

- Samples from process or wastewater streams collected for the EOL determination will be in accordance with 40 CFR 61.355(c).
- All samples collected for the EOL determination will be analyzed by EPA method 8260 or 8021.
- All samples will be collected by individuals trained in the proper sampling techniques.

5 END OF LINE CALCULATION SUMMARY

General guidelines for the EOL Benzene Quantification Plan include the following:

- Sampling will be conducted monthly for EOL inclusion. Three samples will be drawn and analyzed for each sample point, and the average benzene concentrations from the three samples will be used for the EOL Benzene Quantification calculation. If there is a significant deviation among the three samples, it will be removed and the average taken from the remaining samples.
- Benzene analytical results and totalized flows between consecutive sampling events will be used to quantify the amount of benzene from each particular EOL sample point. In the event that a sample cannot be collected from a particular sample point, a suitable alternate will be found,

or the reasons for the unavailability of the sample point shall be thoroughly documented and benzene concentration from the previous sampling event will be used.

- The Monthly EOL BQ will be calculated by adding the BQ of the individual streams for the month. The Quarterly EOL BQ will be calculated by adding the Monthly EOL BQs for the quarter in question. The Annual Prorated EOL BQ will be calculated by summing (a) the Quarterly EOL BQs already recorded, and (b) the average for the Quarterly EOL BQs already recorded until all four quarters for the annual period have been accounted. (See Section 5.6).
- If the sum of the EOL sampling benzene quantity for the three month period contained within a quarter (i.e., the Quarterly EOL BQ) equals or exceeds 1.2 Mg, then the sampling plan shall be expanded to include each uncontrolled stream containing benzene over 0.05 Mg/yr as identified on the most recently submitted TAB report.
- If the sum of the EOL sampling benzene quantity for two consecutive quarters indicates that the EOL benzene quantity prorated on a yearly basis (i.e., the Annual Prorated EOL BQ) will exceed 4.8 Mg/yr, and the cause for the high readings has not been identified and corrected, then the sampling plan shall be expanded to include each uncontrolled stream containing benzene over 0.03 Mg/yr as identified on the most recently submitted TAB report.
- If in the three consecutive quarters (a) the sum of the benzene quantity indicates that the benzene quantity, prorated on a yearly basis, will exceed 4.8 Mg/yr; or (b) the sampling of 0.05 and /or 0.03 streams indicates that the projected uncontrolled benzene for the calendar year will exceed 6 Mg and the cause for the high readings has not been discovered and corrected, then in the fourth quarter, a third party contractor will be retained to undertake a comprehensive TAB study and compliance review.

Sample Location S1 – Sand Filter Effluent

Test Method:	EPA 8260B
Sample Frequency:	Monthly
Sample Location:	North West side of Sand Filters at 16" effluent line to City of Detroit Sewer.
Flow Determination:	Average flow meter reading for the month.
Special Method:	None

Benzene Quantity Calculation:

(Flow, million gallons)*(8.34 lbs/gal)*(Bz Concentration,ppmw)

Sample Location S2 – Tanks 29T40/41 Oil

Test Method:	EPA 8260B or 8021
Sample Frequency:	Monthly
Sample Location:	3" Line from Tanks 29T40/41 to slop system.
Flow Determination:	The totalizer reading from the end of the month minus the totalizer reading from the

beginning of the month will yield how much the pump ran (and how much material was flowing) for the month in question. Alternatively, differences in volume and time pump ran will be used.

Special Method: Grab Sample from 1"sample tap on transfer line. If the sample contains a water and an oil phase, an estimate of the percent of oil phase will be made. Then the amount of flow as indicated by the totalizer readings will be adjusted downward to account only for the amount of oil contained in the sample. Only the oil portions of this stream is counted in the EOL BQ. The water is recycled back to the front end of the API Separator, so the benzene contained in that volume of material will eventually be captured at Sampling Location S1.

Benzene Quantity Calculation:

(Total Flow, gallons)*(Percent in oil phase)*(Density of oil in lbs/gal)*(Bz Concentration in oil phase, ppmw/1000000).

Sample Location S3 – Tank 29T12

Test Method: EPA 8260B or 8021

Sample Frequency: Monthly

Sample Location: Effluent of 29T12 prior to centrifuge.

Flow Determination: Difference in tank levels prior to and after pumping while factoring time pump ran.

Special Method: Grab Sample. This sample may vary in composition from liquid, sludge, or semi-solid. Therefore, depending on composition density of oil phase may need to be factored into benzene quantity calculation.

Benzene Quantity Calculation:

(Flow, gallons)*(Percent in possible oil phase)*(Density of oil in lbs/gal)*(Bz Concentration, ppmw)

5.3a ***Sample Location S3a – Centrifuge solids***

Test Method: EPA 8260B or 8021

Sample Frequency: Monthly

Sample Location: Solids from centrifuge effluent.

Flow Determination: Difference in oil leaving the centrifuge and effluent from Tank 29T12.

Special Method: Grab Sample.

Benzene Quantity Calculation:

(Weight of solid material, lbs)*(Bz Concentration, ppmw/1000000)

5.3b Sample Location S3b – Centrifuge oil

Test Method: EPA 8260B or 8021
Sample Frequency: Monthly
Sample Location: Oil from centrifuge effluent
Flow Determination: Difference in solids leaving the centrifuge and effluent from Tank 29T12.
Special Method: Grab Sample.
Benzene Quantity Calculation:
(Flow, gallons)*(Percent in possible oil phase)*(Density of oil in lbs/gal)*(Bz Concentration, ppmw)

5.4 Sample Location S4 – Vacuum Truck Movement to Slop System

Test Method: EPA 8260B or 8021
Sample Frequency: As needed
Sample Location: Various
Flow Determination: Volumes as recorded in Vacuum Truck Logsheets.
Special Method: Grab Sample
Benzene Quantity Calculation:
(Weight of waste material, lbs)*(Bz Concentration, ppmw/1000000)

5.5 Sample Location S5 – Miscellaneous Wastes

Test Method: EPA 8260B
Sample Frequency: As needed
Sample Location: Various
Flow Determination: Volumes are recorded in Vacuum Truck Logsheets or in operation records.
Special Method: Grab Sample
Benzene Quantity Calculation:
(Weight of waste material, lbs)*(Bz Concentration, ppmw/1000000)

5.6 Sampling Location S6 – Spent Caustic

Test Method: EPA 8260B
Sample Frequency: Weekly
Sample Location: 21V47 Spent Caustic Tank
Flow Determination: Volumes are recorded by Accounting on Invoices from Merichem
Special Method: Grab Sample
Benzene Quantity Calculation:
(Weight of waste material, lbs)*(Bz Concentration, ppmw/1000000)

[1] If the density of the hydrocarbon/waste isn't known, default to 8.31 lbs/gal as a rough estimate.

5.7 Calculations for Monthly, Quarterly, & Annual Prorated EOL Benzene Quantities, Mg

Monthly EOL Benzene Quantity, Mg = (Sand Filter Effluent Benzene, Mg) + (Tanks 29T40/41 Benzene, Mg) + (Tank 29T12 Effluent Benzene, Mg) + (Uncounted Vacuum Truck Material Benzene, Mg) + (Miscellaneous Waste Benzene, Mg)

Quarterly EOL Benzene Quantity, Mg $= \sum_{i=1}^{3} [(\text{Monthly EOL BQ, Mg})_i]$

Annual Prorated EOL Benzene Quantity, Mg $= \sum_{i=1}^{n} [(\text{Quarterly EOL BQ, Mg})_i] + \sum_{i=1}^{n} [(\text{Quarterly EOL BQ, Mg})_i] / n * (4-n)$

Where n = the number of completed quarters for the annual period.

6 REPORT SUBMITTAL

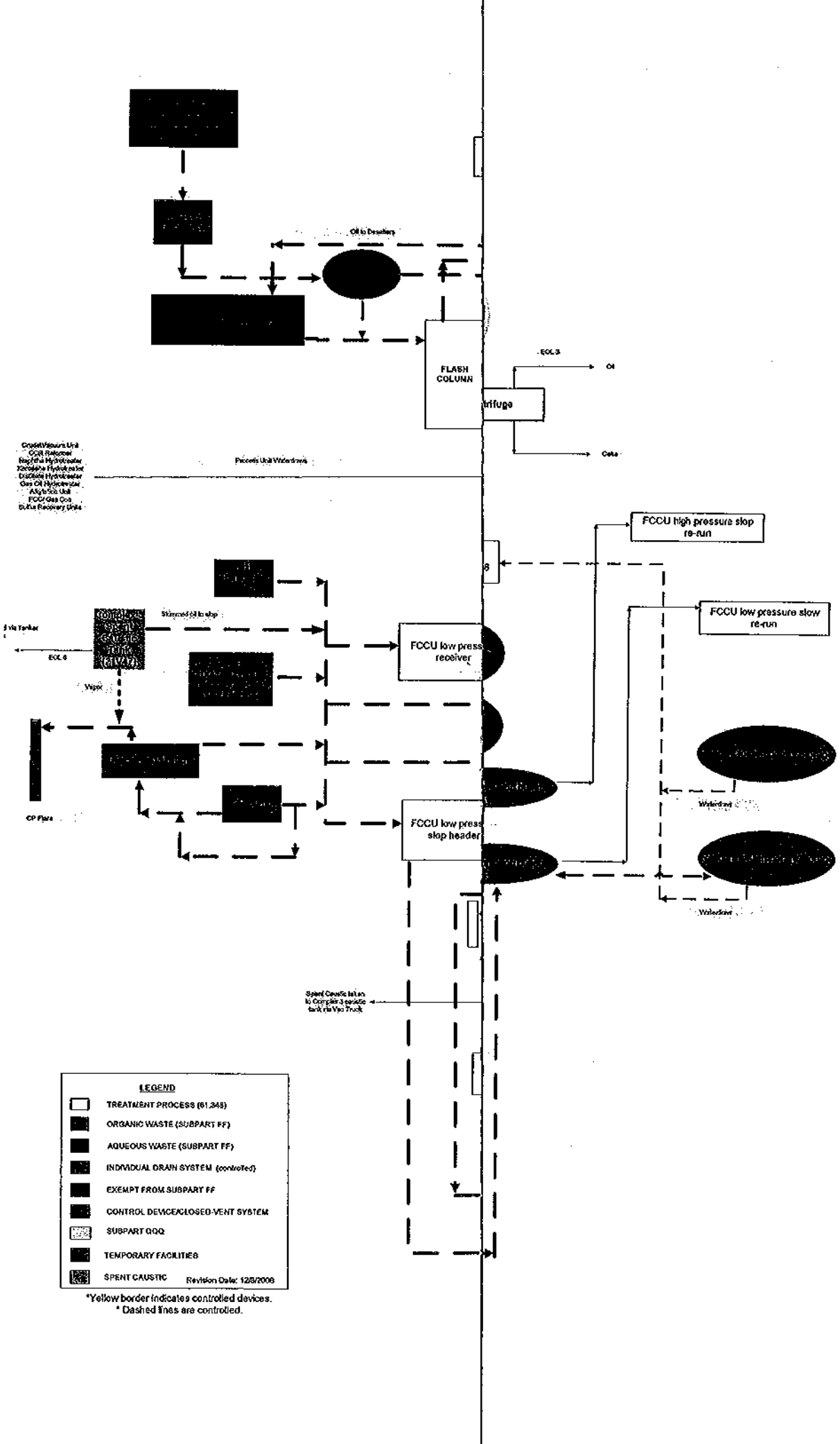
EOL Sampling Reports will be submitted to EPA Region V on a quarterly basis in conjunction with the quarterly reports required by 40 CFR 61.357(d). The reports will list all waste streams sampled, the results of the benzene analysis for each sample, and the computation of the EOL benzene quantity for the three months contained within the respective quarter.

If the quarter is one in which the sampling plan was expanded to include the sampling of >0.05 streams and/or >0.03 streams, then the report shall also include (a) the results of those sampling events; (b) a descriptions of the actions being taken to identify and correct the source of the potentially elevated benzene quantities; and (c) a request for EPA's specific approval of actions to correct the potentially elevated benzene quantities.

Additional information shall be included as deemed appropriate by MPC.

Attachment A

End of Line Sampling Locations


FLASH COLUMN
EOL 3
Oil
Coke
FCCU high pressure slop re-run
FCCU low pressure slop re-run
FCCU low press receiver
FCCU low press slop header
Vapor
EOL 6
CP Flare
LEGEND
TREATMENT PROCESS (61.345)
ORGANIC WASTE (SUBPART FF)
AQUEOUS WASTE (SUBPART FF)
INDIVIDUAL DRAIN SYSTEM (controlled)
EXEMPT FROM SUBPART FF
CONTROL DEVICE/CLOSED-VENT SYSTEM
SUBPART QQQ
TEMPORARY FACILITIES
SPENT CAUSTIC
Revision Date: 12/8/2006
*Yellow border indicates controlled devices.
* Dashed lines are controlled.

DEQ

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

RENEWABLE OPERATING PERMIT REPORT CERTIFICATION

Authorized by 1994 P.A. 451, as amended. Failure to provide this information may result in civil and/or criminal penalties.

Reports submitted pursuant to R 336.1213 (Rule 213), subrules (3)(c) and/or (4)(c), of Michigan's Renewable Operating (RO) Permit program must be certified by a responsible official. Additional information regarding the reports and documentation listed below must be kept on file for at least 5 years, as described in General Condition No. 22 in the RO Permit and be made available to the Department of Environmental Quality, Air Quality Division upon request.

Source Name: Marathon Petroleum Company LLC — County: Wayne

Source Address: 1300 South Fort Street — City: Detroit

AQD Source ID (SRN): A9831 — RO Permit No.: 199700013 — RO Permit Section No.: 01

Please check the appropriate box(es):

☐ **Annual Compliance Certification (General Condition No. 28 and No. 29 of the RO Permit)**

Reporting period (provide inclusive dates): From _____ To _____

☐ 1. During the entire reporting period, this source was in compliance with **ALL** terms and conditions contained in the RO Permit, each term and condition of which is identified and included by this reference. The method(s) used to determine compliance is/are the method(s) specified in the RO Permit.

☐ 2. During the entire reporting period this source was in compliance with all terms and conditions contained in the RO Permit, each term and condition of which is identified and included by this reference, **EXCEPT** for the deviations identified on the enclosed deviation report(s). The method used to determine compliance for each term and condition is the method specified in the RO Permit, unless otherwise indicated and described on the enclosed deviation report(s).

☐ **Semi-Annual (or More Frequent) Report Certification (General Condition No. 23 of the RO Permit)**

Reporting period (provide inclusive dates): From _____ To _____

☐ 1. During the entire reporting period, **ALL** monitoring and associated recordkeeping requirements in the RO Permit were met and no deviations from these requirements or any other terms or conditions occurred.

☐ 2. During the entire reporting period, all monitoring and associated recordkeeping requirements in the RO Permit were met and no deviations from these requirements or any other terms or conditions occurred, **EXCEPT** for the deviations identified on the enclosed deviation report(s).

☒ **Other Report Certification**

Reporting period (provide inclusive dates): From 4/1/2009 To 6/30/2009

Additional monitoring reports or other applicable documents required by the RO Permit are attached as described:

second quarter 2009 Leak Detection and Repair, Wastewater VOC, and Benzene Waste NESHAP Certification and Compliance Report

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this report and the supporting enclosures are true, accurate and complete.

George P. Shaffner	Division Manager	(313) 843-9100
Name of Responsible Official (print or type)	Title	Phone Number
Signature of Responsible Official		7/24/09 Date

* Photocopy this form as needed.

EQP 5736 (Rev 9/01)